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BALTIMORE, JULY 6, 1911.

TO BUILD.

Charles Kantorowick of Little Rock, Ark., in writing about negotiations which are pending with foreign capitalists for investments in that State, says:

Under the able and energetic management of President B. F. Bush of the Missouri Pacific and Iron Mountain systems, a great effort is being made to bring the roads into good shape to develop the resources of the State and to stimulate freight and travel, as Mr. Bush's policy is to build up and develop.

NOT HOPELESS.

John X. Cudmore, 208 West 87th street, New York city, writes to the MANUFACTURERS RECORD in connection with the demand from certain influential quarters that the Government assume control of great industrial and transportation corporations:

How are you going to prevent the people from taking over the large industries, or, rather, how are you going to prevent the corporations from selling out to the Government at a very large profit? This, I fear, is to be one of the results of the "trust-busting" crusades.

There would have been no "trust-busting" crusades, no unwarranted assaults upon aggregations of capital, had the past 20 or 25 years been marked by honest and earnest administration of laws already on the statute books or crystallized in judicial decisions and by observance of the unwritten law of decency in the relation of man to man and of corporation to man, and had such administration and observance of law been accompanied by sincere efforts to educate the mind of the public to the inevitableness and the benefits of vast

corporate activities, instead of attempts to fight with fire the devil of demagoguery and to deal with discontent upon a dishonest basis. Events of the past three or four years have been full of lessons tending to induce a saner outlook upon conditions in the United States. That those lessons have not yet been learned thoroughly in some quarters, as is indicated in the demand for Government control, should not discourage any agency for sanity from continuing to oppose inclinations that would be disastrous to corporations and individual citizens alike. Such agencies know that the proper relations of Government and corporations and of corporations and the public are being better and better defined every day. Complete definition—and it is bound to come—will create a public mind that will enable the people to steer safely between the Scylla rock of control of corporations by the Government and the Charybdis swirl of control of the Government by corporations.

ENGLISH CAPITAL LOOKING TO THE SOUTH FOR INVESTMENT.

For several years prior to the Baring failure English capital was being invested to a very large extent in Southern railroad and industrial enterprises. At the time of the Baring collapse many negotiations were under way in England, with good prospects of success, for other large investments in the purchase of mineral and timber properties, in the building of railroads and in various undertakings looking to broad development of Southern resources. Following the Baring failure, however, and the collapse of business and financial interests in this country with the panic of 1893, and the free-silver agitation of the next few years, English capital sought other channels for investment. For a good many years it was impossible to interest London financiers in Southern enterprises of any kind. English money was poured into Canada, into South Africa, into Australia and elsewhere, but it absolutely refused to again flow to the South. This condition has existed for nearly 20 years, but now there is a marked revival of interest on the part of English capital in Southern investments. Within the last few months, as recently stated in the MANUFACTURERS RECORD, English cotton manufacturers have put \$3,000,000 into the purchase of cotton lands in Mississippi and \$6,000,000 into a great irrigation enterprise in Texas. Negotiations are now under way in England for the financing of some large water-power enterprises and a number of other undertakings, the carrying out of which would prove of very great value to the South. More important, however, than these individual enterprises is the fact that English capitalists are again looking with favor upon the South as a place for investment.

As the United States for many years had to look to Europe for the capital needed for railroad and large industrial

development and enterprises, as Canada must still look largely to Europe for capital for its upbuilding, so the South of necessity must seek capital beyond its borders for the utilization of its vast resources. Its wealth of opportunity is greater than its wealth as expressed in money. These resources for railroad expansion, for mineral developments, for the utilization of the many idle water-powers, offer an almost unlimited field for profitable investment. The South cannot for many years to come supply the capital needed. The expansion of its railroad interests, the development of its mineral and timber and water-power resources must all very largely depend on outside money. It is, therefore, especially gratifying to note the favor with which Southern investments are again being regarded in the financial centers of Europe. If some of the surplus wealth of England and France and Belgium and Holland and Germany can be turned into Southern investments, the wealth of this section will be rapidly enhanced and undeveloped resources will be utilized to the profit of the South and of the capital invested, and sections lacking railroads will be able to secure better transportation facilities. The signs of the times are all favorable to the South. The investment of foreign capital in this section will create confidence on the part of home capital, and we shall soon see a broader and more far-reaching material development of this section than it has yet had.

As bearing on this reawakened interest of English investors in the South the following letter may be of interest:

Waterford, N. Y., June 30.

Manufacturers Record.

Baltimore, Md.:

Gentlemen—Please ship at once to James Mitchell, care of Sperling & Co., 9 Moorgate street, London, England, 100 copies of book issued by you entitled "Manufacturers Record's Annual Blue Book of Southern Progress, 1911 Edition." Pay shipping charges.

The one I have is marked compliments of the Central of Georgia Railway Co. Send the bill for same to me and I will remit. Am asking you to send direct to London, because I am engaged in financing this project, and one of your books fell into our people's hands and they want a large number for the education of the British public to the Southern situation. The one I had was regarded by the English representative as highly useful for this purpose.

Please answer at once and let me know that you have shipped them, and oblige,

Yours truly,

THOMAS O'CONNOR,
President.

The MANUFACTURERS RECORD and its publications about the South have gone to all quarters of the world and their influence is ever widening. The Central of Georgia Railway Co. bought 1000 copies of our annual Blue Book of Southern Progress, one copy of which fell into the hands of English people, and is likely to aid in bringing some millions of capital into the territory of that road. Thus the wisdom of that investment by the Central road is quickly demonstrated.

PRICES OF COTTON AND OF COTTON GOODS COMPARED.

If any doubts remain about the necessity for a cultivation of a public opinion that will pay higher prices for cotton goods, they ought to disappear in the face of facts brought out in an analysis of the prices of raw cotton and of cotton goods as they have changed in the past 10 years. From almost every point of view appears emphasis of the fact that the prices of cotton products have not kept pace with the price of raw cotton. Only world-wide disturbance by war or through financial catastrophe is likely to affect materially the average price per pound for cotton of the past five years, as different, from the growers' standpoint, from the average price of the last five years of the nineteenth century as starvation is from healthy diet. Attempts to bring the price of cotton back to the regrettable position of 12 years ago, either through sudden expansion of cotton-growing acreage or through manipulation of the markets, are, therefore, likely to embarrass cotton manufacturers by diverting their energies from the urgent task of getting better prices for their finished products. That truth is borne in upon a disinterested mind which studies the figures of 1899 in comparison with those of 1909, the latest available.

In that period the quantity of cotton consumed by mills in this country increased from 1,814,003,000 pounds, costing \$124,905,000, to 2,332,560,000 pounds, costing \$274,402,000. The increase in quantity consumed, equal to 29 per cent., was accompanied by an increase of 120 per cent. in the cost of the raw cotton. The rate of increase in the prices and in the aggregate value of the products has not approached the increase in the cost of the raw cotton. And when the cost of other raw materials and of labor is taken into consideration the disadvantage as to products becomes more apparent. The value of the products increased from \$332,806,000 to \$616,297,000, or 85 per cent., against an increase of 112 per cent., from \$151,900,000 to \$322,884,000, in the cost of the principal materials, and the value of the product, after deducting the cost of the materials, increased from \$180,846,000 to \$293,413,000, or only 62 per cent., against an increase of 120 per cent. in the cost of the raw cotton. The cost per bale of 500 pounds of raw cotton increased in the 10-year period from \$34.43 to \$58.82, or 70.9 per cent., while the value of the products of a bale of cotton increased from \$91.73 to \$132.17, or only 44 per cent., and the value of the products of a bale, with the cost of the raw material deducted, increased from \$49.85 to \$62.88, or 26.14 per cent.

The goods made from a bale of cotton in 1899 could exchange for nearly half a bale more of raw cotton than the goods made from a bale of cotton in 1909. In 1899 the \$34.43 represented in a bale of cotton became \$91.73 in the goods made from the bale of cotton, and in 1909 the \$58.82 in the bale became

\$132.17 in the goods made from the bale, according to the proportionate averages for the several products set forth in the following table:

Proportionate Values of Goods Made From a Bale of Cotton.

Material.	1899.	Value.	1909.
Plain cloths.....	\$15 93	\$26 01	
Sheetings and shirtings.....	15 39	17 22	
Yarns for sale.....	15 21	23 41	
Fancy fabrics.....	5 81	10 22	
Napped fabrics.....	5 02	5 50	
Ticks, denims, etc.....	4 54	5 85	
Ginghams.....	4 46	8 11	
Twills and sateens.....	3 94	7 35	
Duck.....	3 93	5 97	
Drills.....	3 27	3 49	
Thread.....	3 27	4 41	
Waste.....	1 50	2 33	
Tapestries.....	1 14	1 07	
Lace and curtains.....	99	2 09	
Cottonades.....	77	72	
Corduroy, etc.....	74	1 49	
Bags and Bagging.....	71	93	
Twine.....	41	52	
Covers, etc.....	27	27	
Netting.....	24	45	
Fatting and wadding.....	23	32	
Towelling.....	4	1 31	
All other.....	4 06	3 13	
Total.....	\$91 73	\$132 17	

The variance between the increases in the prices of raw cotton and the prices of cotton goods thus indicated becomes more pronounced when actual prices are considered.

The price of the pound of cotton increased from 6.88 cents to 11.76 cents, or 70.9 per cent, while the combined prices per yard or pound of six products, representing in 1909 nearly 70 per cent. of all products, increased but 37 per cent. Increases in the quantities and values of these six products, as showing their prices, should be compared with the increase in the price of raw cotton, as follows:

Raw cotton from 1,814,003,000 pounds at \$124,905,000 to 2,332,569,000 pounds at \$274,402,000, or from 6.88 cents to 11.76 cents a pound, equal to 70.9 per cent.

Plain cloths for printing or converting from 1,581,614,000 square yards at \$57,781,000 to 2,437,967,000 square yards at \$121,341,000, or from 3.6 cents to 4.9 cents a yard, equal to 36 per cent.

Cotton yarn manufactured for sale from 332,186,000 pounds at \$55,189,000 to 470,221,000 pounds at \$109,219,000, or from 16.6 cents to 22.8 cents a pound, equal to 37 per cent.

Brown or bleached sheetings and shirtings from 1,212,403,000 square yards at \$55,513,000 to 1,307,958,000 square yards at \$80,318,000, or from 4.5 cents to 6.1 cents a yard, equal to 35 per cent.

Fancy woven fabrics from 237,842,000 square yards at \$21,066,000 to 427,769,000 square yards at \$47,666,000, or from 8.8 cents to 11.1 cents a yard, equal to 26 per cent.

Ginghams from 278,393,000 yards at \$16,179,000 to 536,443,000 yards at \$37,801,000, or from 5.8 cents to 7 cents a yard, equal to 20 per cent.

Twills and sateens from 235,861,000 square yards at \$14,301,000 to 388,315,000 square yards at \$34,274,000, or from 6 cents to 8.8 cents a yard, equal to 43 per cent.

The nearest approach to the increase in the price of raw cotton in the decade on the part of leading products is the 54 per cent. increase in the price of duck. The divergence becomes more marked when other products are considered, the price of thread advancing only 15 per cent. in the 10 years and the price of ticks, denims and stripes 8 per cent.

Were the figures of quantities and values of cotton products of the past 12 months accessible in the fullness of those of 1909 for comparison with the average price of raw cotton, the importance of the problem confronting the cotton mills of the country would be still better appreciated, for during that

time the raw material has commanded much higher prices than in 1909. The difficulties of accustoming buyers to paying a few cents more a yard for goods that have had, perhaps, almost a standard price for years are easily understood. But they are not insurmountable. Wise persistence on the part of the manufacturers will overcome them.

THE APPALACHIAN RESERVE.

Approval by the National Forest Reservation Commission of the purchase for \$207,821 of a tract of 31,377 acres of land, massed in Fannin, Union, Gilmer and Lumpkin counties, Georgia, marks the beginning of the work of assuring a great forest reserve in the Southern Appalachians. The official approval is contingent upon such details as clear title, etc.; but, according to dispatches from Washington, such details will work out satisfactorily. This primary tract is described as lying within the drainage basins of Rock, Nontootly and Harkins Mill creeks, headwaters of the Toccoa River, which empties into the Tennessee River, and the National Geological Survey has reported that control of these lands will have an appreciable effect in insuring the continuance and possible betterment of the important low-water contribution of the Toccoa River and in diminishing the present excessive delivery of sediment in this tributary to the Hiwassee and Tennessee rivers. When all the acreage required for the reserve in West Virginia, Tennessee, the Carolinas, Georgia, Alabama and Virginia has been acquired and placed in control of the Government experts it may be expected not only that the deterioration of important water highways through the deposit of sediment will be checked, but also that there will be a steady improvement on the mountain sides, bringing about conditions that will diminish, if not prevent, the immense losses by floods along important Southern streams.

SIX MONTHS' INDUSTRIAL ACTIVITIES IN THE SOUTH.

During the past six months the Construction Department of the MANUFACTURERS RECORD published 29,039 brief statements relative to the development of industrial, building and railroad enterprises of the South and Southwest, this being an excess of nearly 1500 items over the corresponding period in 1910. In this connection we note the recently-published words of a special correspondent that

It would be decidedly interesting, if it were possible to do so, for the MANUFACTURERS RECORD to tabulate not only the number and character of the industrial enterprises, but also the number of men it influenced to come to the South from other sections of the country, and the amount of money they and others have invested in the Southern States, as well as the number of Southern men to whom its reading pages have been an inspiration for doing larger and greater things.

Following this line of thought, and radiating from it, the evidence seems conclusive that these very pages of industrial news are in themselves the concentration of "reading" matter that is worth while to those seeking such industrial inspiration, or those who are to be thereby awakened to great possibilities.

To present these more than 29,000 concise items published since January 1 hundreds of such "reading" pages of Construction Department have been covered, these pages all presenting boundless opportunities for investments of capital and labor, the sale of machin-

ery and materials, and the trained skill of engineering and other scientific specialists. All phases of industries have been shown in these items, which included the establishment of new plants, extension and increased capacity of plants already in operation, rebuilding of those destroyed by fire or otherwise, the installation of new machinery, and innumerable and varied other interests. The following table presents these concisely:

Total of items to July 1.....	29,039
January.....	3,814
February.....	4,408
March.....	5,074
April.....	4,841
May.....	5,688
June.....	5,214

Construction.....	24,149
Machinery, Proposals and Supplies Wanted.....	3,715
Burned, etc.....	1,175

Divided in detail as follows:	
Bridges, Culverts, Viaducts.....	466
Canning and Packing Plants.....	140
Clayworking Plants.....	136
Coal Mines and Coke Ovens.....	275
Concrete and Cement Plants.....	49
Cotton Compresses and Gins.....	223
Cottonseed-oil Mills.....	85
Drainage and Irrigation.....	136
Electric-light and Power.....	601
Fertilizer Factories.....	96
Flour, Feed and Meal Mills.....	111
Foundry and Machine Plants.....	303
Gas and Oil Developments.....	306
Ice and Cold-storage Plants.....	218
Iron and Steel Plants.....	41
Land Developments.....	622
Lumber Manufacturing.....	634
Metal-working Plants.....	50
Mining.....	297
Miscellaneous Construction.....	259
Miscellaneous Enterprises.....	1,059
Miscellaneous Factories.....	1,577
Railway Shops, Terminals, Roundhouses, Sheds, etc.....	73
Road and Street Work.....	1,313
Sewer Construction.....	504
Telephone Systems.....	251
Textile Mills.....	228
Water-works.....	759
Woodworking Plants.....	367

RAILWAYS.	1,359
Street.....	201

BUILDINGS.	
Apartment-houses.....	411
Association and Fraternal.....	369
Bank and Office.....	754
Churches.....	847
City and County.....	480
Courthouses.....	209
Dwellings.....	2,735
Government and State.....	239
Hotels.....	566
Miscellaneous.....	649
Railway Stations.....	278
Schools.....	1,557
Stores.....	1,695
Theaters.....	200
Warehouses.....	418
Burned, etc.....	1,175
Machinery, Proposals and Supplies Wanted.....	3,715
Total.....	29,039

During the six months there were published 3715 items relative to machinery, proposals and supplies wanted. The study of one recent day's mail revealed the interesting fact that some 30 correspondents wrote us concerning so wide and varied a list as the following: Advertising novelties, battling machinery, boilers, brick presses, bridge construction, broom corn, buckram, building materials, cattle feed, coal, cotton goods, cotton machinery, cottonseed meal, dredging and dredging machinery, dry goods, electric fixtures, elevator, engine, causeway work, handles, hardware, lumber, Jetty work, reinforced concrete frame, rice products, road construction, rubber balls, sash and doors, erection of spillway gates and caissons, springs and hinges, silks, steam shovel work, steel frame, steel rolling shutters, yarns, water-works materials, wire netting and woodworking machinery. Every one of these came as a definite request for exact information, and the writers are not only from our Southern States (though largely so), but also represent other sections of the United States, as well as many foreign countries, from Panama (so rapidly coming nearer) even to far-away cities such as Milan in Italy, Hamburg of Germany, and Amritsar, India. Such was the record of one day's "Machinery Wanted" inquiries, and that day is typical of every day. It illustrates how world-wide is the circulation of the MANUFACTURERS RECORD.

PROGRESSIVE WORK AMONG RAILROADS.

It was lately revealed that the Baltimore & Ohio Railroad Co. is assisting in the construction of the Sandy Valley & Elkhorn Railway, the new line of the Consolidation Coal Co. from Shelby, Ky., to its large mining development in progress near Potter Gap, although this is considerably more than a hundred miles from any of the Baltimore & Ohio tracks. Of course, in extending financial aid to the new coal road the trunk line is actuated by considerations of traffic to come, which, after leaving Shelby, will have to traverse about 125 miles of the Chesapeake & Ohio Railway before reaching a point on a Baltimore & Ohio line. Nevertheless, the management of the latter is evidently satisfied that its investment in the coal railroad is warranted and that it will yield satisfactory returns, despite the fact that its main line is remote from the new one and dependent upon a road under other control to get its traffic out.

This relation of the Baltimore & Ohio and the Consolidation Coal Co. to provide the latter with a railroad for hauling its mineral products, and the incidental relation with the Chesapeake & Ohio Railway to complete the links of steel required to convey the fuel to market, are gratifying evidences of the practical policies governing some of our most enterprising and progressive corporations. Had it been necessary there is small doubt that another railroad would have been built from the Ohio River down through the eastern tier of counties in Kentucky to make the connection needed by the Baltimore & Ohio, but the Chesapeake & Ohio, by providing the requisite trackage facilities, rendered such an expense needless at this time, and although the counties alluded to will eventually obtain transportation facilities, the paralleling of an existing road has been avoided and a large amount of railroad capital saved for employment in some other region. This inclines to make the existing railway prosperous, tending toward lower rates for traffic.

The recent agreement closed between the Missouri Pacific and the Frisco systems for the latter's use of the former's Iron Mountain low-grade line running north and south immediately west of the Mississippi is another case in point. The Missouri Pacific had provided a road with easy grades designed to reach from St. Louis to New Orleans, and the Frisco prepared to parallel it. The trackage agreement assures that it will not do so, but that both companies concerned will share in the use and maintenance of the existing line, from which an extension into Memphis will be constructed to enhance its availability. In either of the two cases mentioned the building of a parallel railroad might have been more to the disadvantage than the advantage of the section traversed because of the consequent division of traffic sufficient to make one line successful, but which might not have proved enough for two, thus keeping traffic rates high.

Still another instance of a railroad company sharing in the building of a line remote from its own is that of the Missouri, Kansas & Texas Railway, which, as lately announced from St. Louis, where headquarters of the system are located, is aiding in the extension of the Wichita Falls & Northwestern Railway for 150 miles in Oklahoma. It is rumored that the Missouri, Kansas & Texas owns the other road, but officials have not yet confirmed the report.

These are a few combinations show-

ing that the disposition of progressive and long-headed railroad men is to avoid needless competition and to prevent unnecessary paralleling of lines. Taken in connection with the increasing inclination of managers to co-operate in the maintenance of equitable rates, it apparently presages a future of transportation relations adequate and satisfactory to the public.

SOUTHERN FARM VALUES.

The value of farm lands and buildings in the South in 1910 was quite close to \$6,000,000,000, according to conservative estimates based upon the figures reported for eight States and the District of Columbia. That was an increase of nearly 100 per cent. over the value of 1900. The figures for the Southern States announced to date are as follows:

Value of Land.		
States.	1900.	1910.
Arkansas.....	\$105,107,000	\$245,137,000
Dist. of Columbia.....	9,700,000	5,466,000
Florida.....	30,823,000	93,288,000
Kentucky.....	291,117,000	483,127,000
Louisiana.....	120,730,000	189,071,000
Maryland.....	120,367,000	163,023,000
North Carolina.....	141,356,000	342,545,000
South Carolina.....	99,806,000	267,931,000
West Virginia.....	134,269,000	205,610,000
Total.....	\$1,040,875,000	\$1,995,198,000

Value of Buildings.		
States.	1900.	1910.
Arkansas.....	\$30,075,000	\$62,992,000
Dist. of Columbia.....	1,574,000	835,000
Florida.....	9,977,000	24,335,000
Kentucky.....	90,887,000	150,655,000
Louisiana.....	33,400,000	49,611,000
Maryland.....	54,811,000	77,751,000
North Carolina.....	52,700,000	113,170,000
South Carolina.....	26,956,000	63,022,000
West Virginia.....	34,027,000	56,848,000
Total.....	\$334,407,000	\$600,099,000

The value of farm lands in these States increased between 1900 and 1910 from \$1,040,875,000 to \$1,995,198,000, or by \$954,323,000, equal to 91.7 per cent., and the value of farm buildings increased from \$334,407,000 to \$600,099,000, or by \$265,692,000, equal to 79.5 per cent. The total value of the farm lands in the whole South in 1900 was \$2,388,592,000. The total value of the farm buildings was \$685,188,000. If the average rates of increase in these two values for the eight States and the District of Columbia prevailed for the South as a whole, the value of farm lands in 1910 was \$4,578,931,000 and of farm buildings \$1,229,912,000.

These increases were made in spite of a comparatively small increase, thus far indicated, in the area of improved farm acreage. The following table gives the figures for the States of the South thus far reported:

Improved Acreage.		
States.	1900.	1910.
Arkansas.....	6,354,000	8,062,000
Dist. of Columbia.....	6,000	5,000
Florida.....	1,512,000	1,803,000
Kentucky.....	13,742,000	14,334,000
Louisiana.....	4,667,000	5,268,000
Maryland.....	3,516,000	3,353,000
North Carolina.....	8,327,000	8,800,000
South Carolina.....	5,776,000	6,085,000
West Virginia.....	5,499,000	5,482,000
Total.....	49,999,000	53,192,000

In these States the increase in improved farm area was from 49,999,000 acres to 53,192,000 acres, or by 3,193,000 acres, equal to only 6.4 per cent. The 49,999,000 acres of 1900 were something less than 43 per cent. of the total improved farm area in that year, aggregating 116,780,000 acres. If the increase for the whole South was at the average rate for the States reported, the improved farm area in 1910 was only 124,254,000 acres. It is believed that full returns will show a greater area, even if greater values are not also shown, for returns from the State of Texas, which had in 1900 about one-sixth of the total improved farm area in the South and nearly 37 per cent. of the total farm acreage of

the South, are still to be reported, as well as those from Georgia, Virginia, Alabama and other States.

It is interesting, however, even at this stage of the returns, to compare the Southern States reported with groups of States in other parts of the country.

In the six New England States the increase in the 10 years was from \$283,400,000 to \$379,142,000, or by \$95,682,000, equal to 33.8 per cent., in the value of farm lands, and from \$244,807,000 to \$332,778,000, or by \$87,971,000, equal to 35.9 per cent., in the value of farm buildings.

In the Middle States—Delaware, Illinois, Indiana, Michigan, New Jersey, New York, Ohio, Pennsylvania and Wisconsin—the increase was from \$5,216,721,000 to \$8,381,607,000, or by \$3,164,886,000, equal to 60.6 per cent., in the value of lands, and from \$1,679,311,000 to \$2,924,763,000, or by \$1,245,452,000, equal to 74.1 per cent., in the value of buildings.

In the States grouped as Cis-Rocky—Colorado, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, North Dakota, Oklahoma, South Dakota and Wyoming—the increase was from \$4,208,715,000 to \$11,359,656,000, or by \$7,150,941,000, equal to 169.9 per cent., in the value of lands, and from \$808,710,000 to \$1,726,007,000, or by \$917,297,000, equal to 113.5 per cent., in the value of buildings.

In the Trans-Rocky group of States—Arizona, California, Idaho, Nevada, New Mexico, Oregon, Utah and Washington—the increase was from \$960,522,000 to \$2,735,310,000, or by \$1,774,788,000, equal to 184.8 per cent., in the value of lands, and from \$138,623,000 to \$295,878,000, or by \$157,255,000, equal to 113.5 per cent., in the value of buildings.

The indicated rates of increases in the values of farm lands and farm buildings in the South were greater than those in New England and in the great stretch of Middle States, but they hardly compare with those for the States between the Mississippi River and the Rocky Mountains and those beyond the Rockies.

WHAT ADVERTISING DOES.

In a letter to the MANUFACTURERS RECORD, Capt. J. F. Merry of Manchester, Iowa, long identified with the work of Southern development, says, with reference to the large amount of produce received yearly by dealers in Chicago from Tangipahoa parish, Louisiana:

When we began to advertise that parish there was not a dollar's worth of farm produce of any kind shipped anywhere from that parish. It is certainly gratifying to note the marvelous developments in that parish as a legitimate result of intelligent and persistent advertising.

In Tangipahoa lies Hammond, one of the most notable illustrations of the results of intelligent advertising where there is anything to be advertised. That flourishing community is one of the monuments of the splendid work that the Illinois Central Railroad has done in the South through the zeal and energy shown by Captain Merry for a quarter of a century in the office of immigration agent for the road. His letter was written on the day following his retirement from active service with the road. But his message to the MANUFACTURERS RECORD, condensing so much of value as to advertising in a few words, will stand out as an incentive for other communities in the South and for other legitimate agencies for the development of that section.

THE WAY TO DEVELOP BUSINESS.

The average man would scarcely think that he could find enough to say about bricks out of which to write a series of very interesting advertisements, making every one of them live, meaty and full of interest. To most people a brick is a brick, and nothing more, but to the Sibley-Menge Brick & Coal Co. of Birmingham bricks are very real, tangible things, having reasons for their existence and for their use, which they are able to tell in an interesting series of advertisements. Under the head of "Brick Talks" the Sibley-Menge Company begins with this issue of the MANUFACTURERS RECORD a series of advertisements about bricks which are worth studying not only by makers of bricks and users of bricks, but by all business men who want to know how advertising can be made effective. No one can read these advertisements without having a higher opinion of bricks as a building material, both because of their lasting qualities and the substantial character of construction made possible by bricks. And the reader will even be impressed with the idea stated in one of these "Brick Talks" that there is a certain dignity to a brick house which always commands respect. The point we wish to make, however, is not to call attention to this particular series of advertisements, but to show how any kind of material and any character of legitimate business can be intelligently and attractively advertised. There are probably few materials which appeal less to the imagination as interesting for advertisements than bricks, and yet the story of bricks as told by Sibley & Menge is interesting, instructive and bound to be effective. We commend the study of these advertisements to every business man.

CHATTANOOGA.

The Chamber of Commerce of Chattanooga, Tenn., J. P. Winn, secretary, is circulating a leaflet setting forth conditions in the city this year. The population of the city and suburbs is placed at 94,000; capital invested in manufacturing, \$36,000,000; value of manufactured products, \$40,000,000; number of industrial employees, 11,000; invested in retail business, \$7,000,000; invested in wholesale business, \$5,000,000, and assessed value of property in Hamilton county, \$40,216,000. The city has 76 miles of sewers, with 96 miles under contract, and 35 miles of paved streets, with 9 miles under contract. The street railway operates 74 miles of track. Two steamer lines on the river operate six boats, and nine railway lines enter the city. Twenty-four coal mines in the Chattanooga territory have an annual output of 2,720,000 tons. There are 3000 square miles of estimated undeveloped coal lands and 500,000,000 tons of iron ore in the territory. The amount of electric horsepower to be available from the Hale's Bar development in the Tennessee River and from the development in the Ocoee River is estimated at 131,000. Chattanooga lies 730 feet above sea level, and its average annual temperature is 60 degrees.

SOUTHERN FARM INCREASES.

Figures of the 1910 agricultural census for Southern States in addition to those already reported in these columns show the following increases between 1900 and 1910:

Arkansas—Improved acreage from 6,354,000 to 8,062,000, or 16 per cent.; value of land from \$105,107,000 to \$245,137,000, or 133 per cent.; value of buildings from \$30,075,000 to \$62,992,000, or 109 per cent.; average value per acre of land alone from \$6.32 to \$14.11, or 123 per cent., and value of implements and machinery from \$8,750,000 to \$16,806,000, or 92 per cent.

North Carolina—Improved acreage from 8,327,000 to 8,800,000, or 6 per cent.; value of land from \$141,956,000 to \$342,545,000, or 141 per cent.; value of buildings from \$52,700,000 to \$113,170,000, or 115 per cent.; average value per acre of land from \$6.24 to \$15.29, or 145 per cent., and value of implements and machinery from \$9,073,000 to \$18,415,000, or 103 per cent.

South Carolina—Improved acreage from \$5,776,000 to \$6,085,000, or 5 per cent.; value of land from \$99,806,000 to \$267,931,000, or 169 per cent.; value of buildings from \$26,956,000 to \$63,022,000, or 137 per cent.; average value per acre of land from \$7.14 to \$19.89, or 179 per cent., and the value of implements and machinery from \$6,630,000 to \$14,067,000, or 112 per cent.

BETTER BALING OF COTTON.

The better baling of cotton is one of the great needs of the South. It has been fully recognized for the last quarter of a century, and persistent efforts have been made to develop better baling systems. Sooner or later it is quite certain that the present cumbersome, costly, wasteful baling system will be entirely supplanted by some better method. Among the efforts now being made to develop a better baling system is that of the Standard Cotton Compress Co. of 115 Broadway, New York, which is introducing its patent compress in the South. A Birmingham company, composed of some leading business men of that city, including W. D. Nesbit, a cotton merchant and president of the Warrant Warehouse Co.; H. K. Milner, a retired manufacturer; Otto Marx, a banker, and others, has secured, so we are advised, the rights of these patents in Alabama, Mississippi and Tennessee. A plant has been established in Birmingham, and tests recently made there are reported as very satisfactory. It is claimed that this compress makes it possible to put 100 bales of cotton in a freight car, thus greatly lessening the number of freight cars needed in handling cotton, to the advantage of the railroads. It is also claimed that as the air is excluded from this compressed cotton by the method of compression, the fire risk is lessened. The company is sending out testimonials from leading bankers, cotton merchants and railroad people who have witnessed a test expressing their appreciation of the Birmingham plant through a strong commendation of its operations.

TENNESSEE CITY FACTORIES.

In five years between 1904 and 1905, according to the Census Bureau, the increases in factories in certain cities of Tennessee were as follows:

Nashville—Capital, from \$15,601,000 to \$27,880,000, or 79 per cent.; value of products, from \$21,567,000 to \$29,650,000, or 37 per cent., and wage-earners, from 8032 to 9721, or 21 per cent.

Memphis—Capital, from \$13,296,000 to \$26,968,000, or 103 per cent.; value of products, from \$20,043,000 to \$30,242,000, or 51 per cent., and wage-earners, from 7374 to 7927, or 7 per cent.

Knoxville—Capital, from \$3,744,000 to \$5,333,000, or 42 per cent.; value of products, from \$6,699,000 to \$8,149,000, or 22 per cent., there being a decrease in wage earners from 2999 to 2773, or 7 per cent.

Chattanooga—Capital, from \$10,394,000 to \$16,125,000, or 55 per cent.; value of products, from \$14,261,000 to \$16,035,000, or 12 per cent., and wage-earners, a decrease from 6420 to 6410.

Jackson—Capital, from \$1,519,000 to \$2,236,000, or 47 per cent.; value of products, from \$2,318,000 to \$2,710,000, or 17 per cent., and wage-earners, from 1268 to 1405, or 11 per cent.

BRIQUETTING LIGNITE.

Successful Tests of the American Product.

The results of the investigations into the briquetting of lignite have just been published by the Federal Bureau of Mines in Bulletin No. 14. Charles L. Wright, who conducted the tests, and who is author of the bulletin, declares that enough testing has been done to indicate that some American lignites equal German lignites in fuel value, and can probably be made into briquets on a commercial scale without the use of binding materials.

"Three samples of lignites," says the author, "one from Texas, one from North Dakota and one from California, were made into satisfactory briquets without the addition of a binder. It was proved that some lignites, after having slacked by exposure, can be made into briquets without the use of binding material, notwithstanding a general opinion that this could not be done. Cohesion and weathering tests demonstrated that good briquets endure handling and resist weathering much better than the lignite from which they are made.

"The tests described apparently show that the cost of briquetting run-of-mine lignites with a German plant, which was used, would be from \$1.35 to \$1.75 per ton, according to the location of the plant. The cost per ton of briquets loaded on cars from a briquet plant at the mine would be in Texas \$2.51; in North Dakota, \$3.53, and in California, \$5.24. It must be borne in mind that these figures are only approximate, and are subject to wide changes because of local conditions. They apply to briquetting run-of-mine lignite to improve its heat value and weather-resisting properties rather than to briquetting slack or waste coal. Since the tests have shown that at least some lignites slacked by exposure to the weather can be made into excellent briquets, it may be possible to utilize lignite slack as well as bituminous slack and anthracite screenings for briquetting, the two latter materials having been made into briquets on a commercial scale both in this country and abroad.

"Of four samples of raw lignite, three samples contained about 40 per cent. moisture and had a fuel value of 6079 to 6241 B. T. U., while a Texas lignite, with a moisture content of 33 per cent., had a fuel value of 6840 B. T. U. The percentage of moisture removed in the process of briquetting ranged from 24 to 32 per cent., and the heat value of the briquet was 36.5 to 54 per cent. higher than that of the raw lignites.

"Excessive moisture in fuel not only causes a waste of useful heat during combustion, because the moisture is vaporized and the vapor superheated, but also is a source of expense to the consumer, who pays freight charges on useless water. For both these reasons lignite briquets have the advantage over raw lignite. In the case of one of the North Dakota lignites the removal of 32 per cent. of moisture during briquetting permits a decided lessening of the cost of supplying a consumer with a given number of heat units. The advantage of the briquets in this respect is of especial importance when transportation to a distant market is involved. If the briquets possess no other advantage over raw lignite than their higher heat value, they would be worth 50 per cent. more than the raw fuel."

This bulletin can be obtained by those interested by writing to the Director of the Bureau of Mines, Washington, D. C.

It is reported that C. C. Coffin of Kentucky has recently made purchases of land in Louisiana aggregating 67,300 acres for \$260,000.



F. S. ROYSTER OFFICE BUILDING, NORFOLK.

To be erected by F. S. Royster; plans prepared by Ferguson, Calrow & Taylor; 12 stories and basement; steel skeleton; fireproof; 55x117 feet; 265 offices; front of light pressed brick with marble trimmings; metal office doors, sashes, window framing, picture molding, etc., finished in mahogany; patent metal doors; four elevators; cost about \$500,000.



HOTEL RICHMOND AT RICHMOND, AS ENLARGED.

To be erected by A. D. Atkinson at cost of \$500,000; addition of two stories and building 93x116 feet; 328 rooms, with 135 baths; 11 stories; iron clay fire-flashed brick; Italian green marble; scagliola columns; main stairway of marble, with bronze trimmings; lobby 35x80 feet, with mezzanine; present lobby used for palm garden; four high-speed elevators; metal windows; mail chutes; roof garden; architect, John Keenan Peebles of Norfolk; general contract awarded to E. W. Minter & Co., 115 Broadway, New York; contractor for interior decorations, William Schefer of 489 Fifth avenue, New York.

Louisiana Rice Statistics.

Statistics concerning the rice-cleaning and polishing industry of Louisiana are contained in a tabular comparative statement, giving tentative figures of the number of establishments, capital invested, value of products, employees, wages, etc., for 1900 and 1904, made public this week by Census Director Falkner.

Notwithstanding the decrease in 1900 in the number of establishments, in the average number of wage-earners employed during the year, and in wages, there was an increase in the capital invested, in the cost of materials used, in the miscellaneous expenses, in the value of products, in the number of salaried employees and in the amount of salaries.

The total number of establishments engaged in the industry was 37 in 1900 and 43 in 1904, a decrease of 6, or 14 per cent.

The total amount of capital invested was \$8,385,212 in 1900 and \$6,138,228 in 1904, an increase of \$2,246,984, or 37 per cent.

The total value of products was \$12,528,656 in 1900 and \$10,718,311 in 1904, an increase of \$1,810,345, or 17 per cent.

The total cost of materials used was \$10,970,862 in 1900 and \$8,973,084 in 1904, an increase of \$1,997,779, or 22 per cent.

The total number of salaried officials and clerks was 257 in 1900 and 232 in 1904, an increase of 25, or 11 per cent.

The total amount paid in salaries was \$337,966 in 1900 and \$288,488 in 1904, an increase of \$49,478, or 17 per cent.

The average number of wage-earners employed during the year was 693 in 1900 and 923 in 1904, a decrease of 230, or 25 per cent.

The total amount paid in wages was \$326,537 in 1900 and \$400,023 in 1904, a decrease of \$73,486, or 18 per cent.

The total amount of miscellaneous expenses was \$463,983 in 1900 and \$399,874 in 1904, an increase of \$64,109, or 16 per cent.

The tabular comparative summary follows:

	Census		P. Ct. of Inc. to 1904
	1900.	1904.	
Number of establishments.....	37	43	*14
Capital.....	\$8,385,212	\$6,138,228	37
Salaried employees.....	257	232	11
Salaries.....	\$337,966	\$288,488	17
Wage-earners (average number).....	693	923	*25
Wages.....	\$326,537	\$400,023	*18
Miscellaneous expenses.....	\$463,983	\$399,874	16
Cost of materials used.....	\$10,970,862	\$8,973,084	22
Value of products.....	\$12,528,656	\$10,718,311	17

*Decrease.

Cafisch Lumber Co.

The Cafisch Lumber Co. of Union City, Pa., wires the MANUFACTURERS RECORD it has purchased Beulah Lumber Co.'s 4000 acres of timber and Elk Lick Lumber Co.'s 4,000,000 to 6,000,000 feet of standing timber, 3,000,000 feet of lumber, 10-mile railroad, with rolling stock, band-saw mill of 30,000 feet daily capacity, etc., all near Hambleton, W. Va. It is proposed to improve mill by adding new carriage, hog and water tank of 200 to 300 barrels capacity, lay two and four-inch mains for fire protection, and probably equip small machine shop. The Cafisch Lumber Co. succeeds the Blackwater Lumber Co., and has incorporated with a capital stock of \$250,000 and the following officers: President, A. L. Cafisch; vice-president, G. H. Miller; secretary, Alfred W. Cafisch; treasurer, J. C. Cafisch; manager (at Hambleton), E. G. Cafisch; all of Union City.

Wants Maple Flooring.

W. J. Grantham of Raleigh, N. C., writes to the MANUFACTURERS RECORD that he wants prices on 50,000 feet of maple flooring for a cotton mill.

Dallas-Oak Cliff Viaduct

TYPICAL OF TEXAS HIGHWAY IMPROVEMENT SPIRIT.

[Special Correspondence Manufacturers Record.]

Dallas, Tex., June 30.

Within the last six years Dallas county has expended the sum of \$2,360,000 on roads and bridges and has pending a bond issue for \$500,000. Of that sum \$960,000 came through the regular channel of taxes for the road and bridge fund, while \$1,400,000 was available from the issue of bonds, and \$600,000 of the bond money has been expended on a system of paved roads.

The drainage, grading and paving is being done under the supervision of the county's engineering department. Dallas county has a special road law that makes

ular shape, evenly graduated from one-quarter inch to one and a half inches, 25 per cent. of siliceous sand and 20 per cent. of medium soft limestone. This combination gives a good body to the pavement, as well as a good binder, thus making a pavement quick, that will stand splendidly.

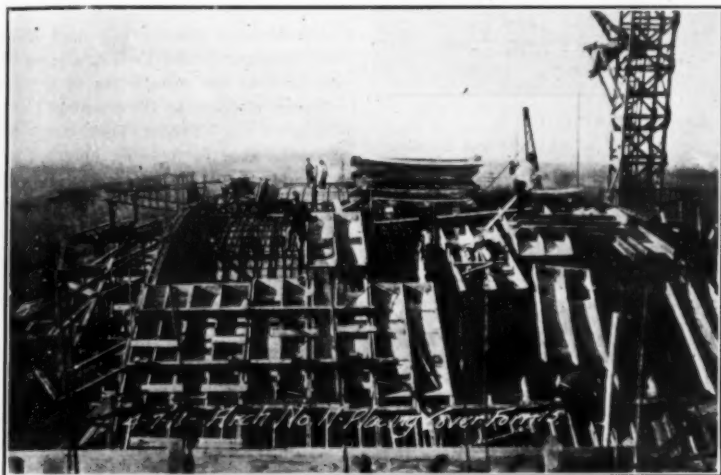
The gravel roads cost about \$2600 per mile, while the macadam and crushed limestone roads cost about \$3000 per mile. About 1700 cubic yards of gravel to the mile is usually used, while approximately 1400 cubic yards of crushed stone is used to pave one mile. The macadam roads are constructed with a base layer of 10 inches

economy in the expenditure of money, as shown especially by the class of bridges the county is now constructing. All the principal pikes have concrete culverts and steel pipe for the most of the creek crossings and for lighter drainage. The old wooden bridges and culverts are being replaced as rapidly as funds will permit.

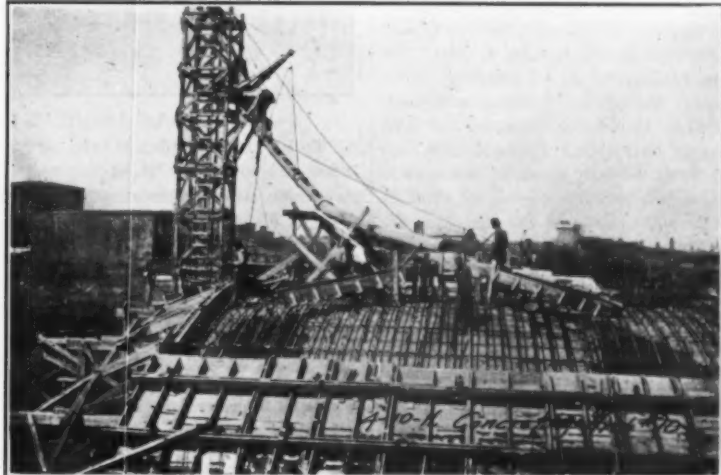
Dallas lies at the head of navigation on the Trinity River. The United States Government has finished two locks, and is at work on four other locks and dams on this river to insure navigation. Three of these locks and dams are in Dallas county, and the Government requirements for clearance have made it necessary for the county to erect three swing bridges. These bridges are in course of construction at this time and they will cost \$65,000. The Miller's Ferry bridge, costing \$105,000,

several days (except by boat) between the city of Dallas proper and Oak Cliff, with a population of 20,000, which lies within the corporate limits of the city of Dallas, but is divided therefrom by the Trinity River Valley. This inconvenience from high water caused an agitation for a viaduct that would forever make Dallas and Oak Cliff one city, as, in fact, they are. A bond issue for \$600,000 was voted by the citizens for this work. With accrued and current interest, this fund will amount to the sum of \$630,000. Work on the viaduct was begun in October, 1910, and will be finished about December, 1911. The entire structure of reinforced concrete is within the corporate limits of Dallas, but is being constructed and will be controlled by the county of Dallas. There is in Texas a special viaduct law that per-

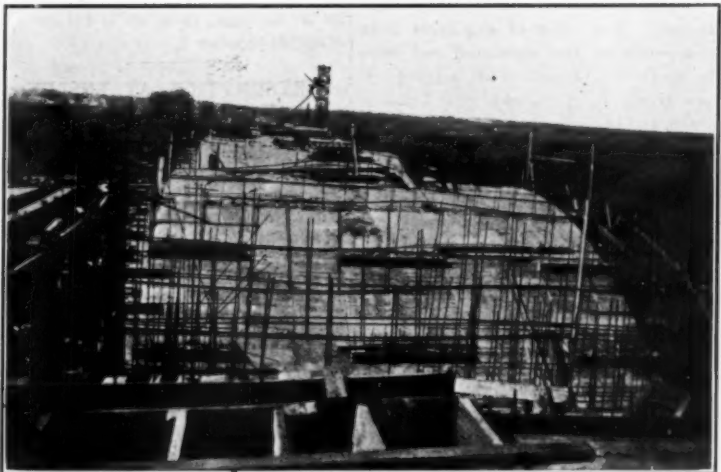
PHASES OF CONSTRUCTION ON DALLAS-OAK CLIFF VIADUCT.



PLACING COVER FORMS.



CONCRETING AN ARCH.



LOOKING WEST OVER ARCH RINGS.



VIEW OF SECTION OF VIADUCT.

imperative the spending of bond money under an engineer. Two hundred and twenty of the 385 miles of paved roads in the county have been constructed with bond money, the balance having been built by convicts and day labor, covering a period of several years. These roads (including small bridges and culverts) cost an average of \$2727 per mile, about 90 per cent. of which were paved with native gravel, averaging possibly two and a half miles, about 5 per cent. being paved with macadam and about 5 per cent. with a hard, tough limestone that is quarried and crushed at Jacksboro, Tex., about 100 miles northwest of Dallas. The paving on all these roads has shown to be reasonably durable, with a nominal sum spent on them yearly for maintenance. An ideal gravel for highway paving is found scattered throughout the county, but not in great quantities. It is composed of about 55 per cent. of very hard pebbles of irreg-

of native soft limestone, which holds up well when covered, but will not last long when exposed to the atmosphere, with a covering or top layer of about four inches of gravel. Dallas county has all grades of gravel, and all the different grades have been used, the best at all times being preferred, but the length of haul governs to a large extent.

There are 12 cardinal and intermediate roads that extend to the county line, with Dallas as the radial center. These roads have a width of pavement from 12 to 18 feet, the width being governed by the ratio of utilization. Dallas county's governing board, the Commissioners' Court, is composed of Hon. John L. Young, County Judge; J. T. Miller, Commissioner from District No. 1, J. M. Hamilton from District No. 2, C. D. Smith from District No. 3, and O. P. Wolcott from District No. 4. They compose a wide-awake, progressive board, looking to the ultimate

has just been completed. It is a structure of concrete and steel, 2720 feet in length, consisting of 42 deck-girder spans, with steel bents that rest on concrete pedestals, with every fifth, or bracing pier, being of concrete, these piers giving rigidity to the structure, the steel girders being fixed at these points and expansion joints being midway between, the river span of 200 feet resting on concrete piers that are 67 feet in height, this span being fixed by giving the Government the required vertical clearance. The floor is of reinforced concrete and the entire structure is paved with asphalt macadam. These four bridges were designed and the erection was supervised by the county's engineer, Mr. J. F. Witt, assisted by the assistant county engineer, Mr. G. G. Wickline, who is resident engineer on the work.

In May, 1908, repeated rains caused the Trinity River to rise to an unprecedented high-water mark, prohibiting traffic for

mits any county that has a city of 50,000 or more people to construct within that city's limits any necessary causeway or viaduct. This structure has 51 arches of 79.5 feet each, the main or river span of 100 feet being steel girders incased in concrete. There are 620 feet of concrete retaining walls, these walls being filled in with an earth embankment. The viaduct proper is 4779 feet in length, the retaining-wall approach and the Oak Cliff terminals to the structure making a total length of 5884 feet. The reinforced concrete arches have open spandrels, and the entire structure has reinforced concrete hand railing and lampposts that are very ornate. The roadway is 44 feet between curbs, with two 4½-foot sidewalks, making the total width between hand rails 53 feet. It is designed to carry on double tracks 100,000-pound interurban cars, with

extra provision for any highway load that may come on it.

The cement that goes in this structure is being bought from a Dallas county plant; the gravel and sand is being bought from a Dallas county concern. The gravel pit is in Dallas county and is fine material. The lumber for forms, amounting to 1,500,000 feet, is brought from Southern Texas. The 3,500,000 pounds of reinforcing and structural steel comes from out of the State, this being the only material entering into the structure that is not bought within the State of Texas.

With the exception of steel and lumber, all the material was purchased from within Dallas county. There will be approximately 48,000 cubic yards of concrete in the structure. The pavement has not been fully decided upon, but will be either asphalt, macadam or creosote pine blocks.

On November 19, 1909, J. F. Witt, county engineer, advertised for competitive plans for the viaduct, plans to be submitted on or before January 1, 1910. The chief requirement to be observed by designers was given. Designs were submitted by 15 different engineers and engineering firms. The Commissioners appointed an advisory board of engineers to pass on the plans, consisting of Prof. T. U. Taylor, member of the American Society of Civil Engineers and professor of civil engineering in the University of Texas; Otto H. Lang, member of the American Society of Civil Engineers, and Mr. N. Werenskiold. The board recommended the adoption of the arch design submitted by Mr. Ira G. Hedrick, member of the American Society of Civil Engineers, consulting engineer, Kansas City, Mo., and Mr. L. R. Ash, member of the American Society of Civil Engineers, associate engineer.

The contract was awarded to Messrs. Corrigan, Lee and Halpin of Kansas City, Mo. The concrete piles for the foundation are being put in place by the Gulf Concrete Construction Co. of Houston, Tex. The field work is being carried out under the supervision of Messrs. Hedrick and Cochrane, consulting engineers, Kansas City, Mo., and Mr. J. F. Witt, county engineer. Mr. E. N. Noyes is resident engineer, representing the consulting engineers.

CHARLES E. TRIMBLE.

The Birmingham Iron Market.

[Special Cor. Manufacturers Record.]
Birmingham, Ala., July 1.

The pig-iron sold in this market during the past week did not bring a higher average price than was received during the week previous, and the aggregate tonnage sold was considerably less. A very small demand for spot shipments was noted and but few inquiries were received for deliveries during the next 60 to 90 days. This condition just mentioned is attributed to the general suspension of operations at foundry plants for July Fourth celebrations and has had no effect on current quotations. The situation as a whole is considered more encouraging than at the time of last report. This is largely due to the indication for a general resumption of operations at all foundry plants within the next 10 days or two weeks and the probability of a much larger melt. The increased demand for steel products has also had an effect, while the most significant feature at this time is the positive assurance that the \$10 per ton Birmingham schedule, even for prompt shipments, will be maintained. It is noted in this connection that storage warrants recently issued have been placed satisfactorily and that the stock accumulations on the various furnace yards are being carried without unusual arrangement of finances, notwithstanding the comparative low values. It



NORFOLK TERMINAL RAILWAY CO.'S BUILDING.

To be erected; union railway passenger station and offices; 400-foot frontage; brick and steel; granite base; terra-cotta trimmings; fireproof; eight stories and mezzanine; two elevators; steam and forced hot-air heat; cost \$500,000; architects, Reed & Stem, 7 East 42d street, New York; contractor, J. Henry Miller, Inc., Baltimore.

is also noted that the inquiries now being received are in more definite form than for some weeks past. Considerable tonnage for delivery during the early part of next year has already been submitted, but the producing interests have in no case made other than nominal quotations. The tonnage to be carried over into the second half of this year from first-half sales is very small comparatively, and stocks on melters' yards are generally low. We do not see fit to change quotations last published, and quote as below for prompt or third-quarter shipments, with deliveries covering the entire last half, at from 25 cents to 50 cents per ton higher. We quote as follows per gross ton f. o. b. Birmingham furnaces, viz.:

No. 1 soft and foundry, \$10.50 to \$11.
No. 2 soft and foundry, \$10 to \$10.50.
No. 3 foundry, \$9.50 to \$10.
No. 4 foundry, \$9.25 to \$9.75.
Gray forge, \$9 to \$9.50.
Mottled, \$8.75 to \$9.25.
Basic, chill cast, \$10 to \$10.50.
Charcoal car-wheel iron, \$22.50 to \$23.

The tonnage placed with pipe manufacturers during the past week was comparatively small, but shipments were made at a larger rate and stocks were accordingly reduced. No new lettings have been added to those soon to be made, although the capacity now in operation has been well provided for through previous sales. The output during the coming week will be comparatively small owing to the suspensions for July Fourth celebrations, but it is understood that all plants in the immediate district will be in full operation within the next 60 to 90 days. No definite announcement has been made as to the probable date of a resumption of operations at the plant of the Sheffield Cast Iron Pipe Co. at Sheffield, Ala., but the stock at that plant has been practically depleted. There has been no change in quotations since last report and we continue to quote class "B" standard water pipe as follows per net ton f. o. b. cars here, viz.: 4-inch to 6-inch, \$22; 8-inch to 12-inch, \$21; over 12-inch, average \$20 per net ton. Class "A" or gas pipe is quoted at \$1 per ton higher than the class "B" prices, and special fittings at from \$45 to \$55 per ton. These quotations are all nominal and probably subject to shading for large contracts.

With the relighting of two large batteries of coke ovens by the Tennessee Coal, Iron & Railroad Co. during the past week some relief has been afforded local coal operators. The movement, however, has been light comparatively and very little new business has been placed. There is some apprehension in local circles of the ultimate developments from the decision of the Interstate Commerce Commission regarding long and short haul rates from points on the Carolina, Clinchfield & Ohio Railway. The effect of shipments from such points as just mentioned and from the Southwest Virginia fields is being felt very keenly by Tennessee and Alabama miners and has accounted to a large extent for the vigorous efforts made to facilitate shipments by water from certain points close to Alabama rivers. Further developments in the regard just mentioned are being awaited with much interest.

Dealers in old material are more hopeful since the increase in the demand for steel products, but their holdings are being moved at a very unsatisfactory rate. The trading between dealers during the past week was very light, but prices have been revised and are generally being maintained in such transactions as are recorded. We continue to quote the market as very weak, with nominal asking prices as follows per gross ton f. o. b. cars here, viz.:

Old iron axes, standard, \$15.50 to \$16.
Old iron axes, small, \$13 to \$13.50.
Old steel axes, light, \$13 to \$13.50.
Old steel axes, standard, \$14 to \$14.50.
Old iron rails, \$13 to \$14.
No. 1 railroad wrought, \$11.50 to \$12.
No. 2 railroad wrought, \$8 to \$8.50.
No. 1 country, \$7 to \$7.50.
No. 2 country, \$6.50 to \$7.
No. 1 machinery, \$8.50 to \$9.
No. 1 steel, \$9 to \$9.50.
Standard car wheels, \$11 to \$11.50.
Tramcar wheels, \$8 to \$8.50.
Light cast and stove plate, \$7 to \$7.50.

A transaction considered of vast importance to the Birmingham district, and which was closed during the past week, was the sale of \$101,000 worth of Corey (Ala.) real estate to the Tennessee Coal, Iron & Railroad Co., upon which homes will be built for the employees of the subsidiary companies of the United States Steel Corporation in and around Ensley, Ala. It is understood that some \$400,000

will be expended in the construction of homes and general improvement of the property purchased, which can only be taken as a very significant indication of the intention to operate the properties in the vicinity affected to the extent originally planned. The operations at the Ensley steel mill were materially extended during the past week and an additional stock was blown in at the furnace plant. Another stack at the Ensley furnace plant is scheduled to go in blast on the 5th inst., while No. 3 furnace at the Bessemer plant has just been repaired and will replace No. 4 furnace at that plant which is to be blown out. The work of installing machinery at the plant of the American Steel & Wire Co. has been resumed, and the force employed at the by-product plant at Wylam has been increased materially.

Nothing new has developed in the Fayette (Ala.) gas fields since last report, but the work of further prospecting is going on without interruption.

Considerable interest has been drawn from the agricultural districts around Birmingham by the installation of a cotton compress designed by the Standard Cotton Compress Co. of New York city. The press referred to is being operated successfully at the plant of the Warrant Warehouse Co. at Birmingham, and has been inspected with much interest by local cotton-mill operators. It is designed to compress the bales from the cotton-gin presses into a package measuring 24x24x 48 inches with a density of 32 pounds to the cubic foot. The package turned out will facilitate the storing of 100 bales in a 34-foot freight car and reduces the tare on an ordinary cotton-gin bale 18 to 22 pounds. The press is operated with small expense comparatively, and when installed represents an outlay of not more than \$5000. It is the intention of the Standard Cotton Compress Co. to install a plant at Waldo, Ark., to be ready for operation about September 1.

RESUMPTION AT ENSLEY.

General Renewal of Operations in Birmingham Plants.

President George G. Crawford of the Tennessee Coal, Iron & Railroad Co. wires from Birmingham to the MANUFACTURERS RECORD that official announcements in connection with the blowing in of Ensley furnace No. 5 on July 5 and blowing in of Ensley furnace No. 1 on July 6, 7 and 8 include:

Five open-hearth furnaces at Ensley to be kept in operation. Pratt mines Nos. 7 and 14 to continue operations, and new slope at Sumter to be started up, the latter to supply coal for coke ovens at Nos. 3 and 4 furnaces at Bessemer, replacing present Semet-Solvay coke; increase to full time mines operating on part time; resume operating coke ovens at Pratt mines Nos. 3, 4 and 5, 400 ovens at Pratt City plant, and 150 ovens at Nos. 3 and 4 furnace plants at Bessemer; resume mining iron at Muscoda mines Nos. 1 and 2 and Fossil No. 9, besides increasing production from present slopes; continue plan of construction for \$100,000 coal-washing plant heretofore announced.

In connection with the announcement from Pittsburg that shipments of machinery for the big plant of the American Wire & Steel Co. at Corey, adjoining Ensley, which had been held up, have been resumed, our Birmingham correspondent wires that local officials of the American Steel & Wire Co. will not give out any information, but that a large force is now being employed at the Corey plant.

Birmingham papers report that the resumption of work at the various iron and steel plants within the last few days has given employment to 5000 men.

Cotton-Mill Interests of New England--II.

LESSONS TO BE LEARNED BY THE SOUTH.

By GEORGE FRENCH of Boston.

In the financing of any manufacturing proposition there are three chief elements, and they apply in all cases—cotton mill or machine shop or steel mill, or whatever: Brains, labor, money. And their importance is in the order I have stated them. In New England these have always been present in the cotton manufacturing situation as primal elements. We have seen how the brains element has been developed and is considered. It is perhaps easier to state the labor proposition, but by no means easier to relate it to the general proposition.

In the mind of the average New England cotton manufacturer his labor is considered as his mill and his capital are considered—as one of the three equal conditions that contribute to his success. In the minds of some of the mill men, labor is not given even this dignity of equality with their mills and their capital. A few men still think that the human machine is of less consequence than the loom, and that it need not be the subject of worry. There is substantial truth in the view of the average mill manager who thinks that he is a liberal and progressive man who is inclined to give his operatives all the advantage he thinks they ought to wish or expect. This man thinks that labor conditions are better in the big mill towns of New England than they are anywhere else in the country, and that mill operatives recognize this as true and act accordingly. Fall River, New Bedford, Manchester, Taunton, Woonsocket, Pawtucket, Lowell, Providence and vicinity, Fitchburg, Clinton, and a few other places in lesser degree, present to the mill operatives the opportunity and the conditions that attract the best among them, and keep the best among them. This is the argument of the average man in the mill control circle. And it has been a very good argument. It is yet a good argument, but not as good as it has been. It has become somewhat frazzled for various reasons. The unions have not been exactly willing to allow these conditions, which relate to the social life of the operatives and really tend to make larger wages a necessity, to stand as wage considerations.

The great attractions of these big mill towns for labor lie in the fact that they offer reasonably permanent employment, wages somewhat above the average of the country in the same employment, clean civic life, opportunity to secure homes under favorable and easy conditions, and perhaps more consequential than either of these considerations, opportunity to preserve race autonomy. With a proportion of the mill operatives the splendid educational advantages offered their children is a factor that will keep them devotedly at their spinning frames or looms during all of their working days, ignoring all other considerations. Fall River, New Bedford and Lowell offer for these people opportunities approached only by Philadelphia, on account of the textile schools in those cities. Later I am going to have more to say about these schools, but now it will suffice to merely point out that they, supplementing as they do the public schools, make it possible for the son of the humblest and poorest of the operatives to aspire to the best mechanical position any of the mills in the country have to offer. It may be necessary for the boy to work in the mill from the earliest day the law

permits, and all the time, yet the cities provide for him the evening schools, at which he may get all the fundamentals of English education he needs, or he may go as far as he likes in classics and some of the higher sciences, and the cities, the State and the millowners combined offer him the chance to get all the training and technical knowledge he needs to fit him for any of the higher positions in any of the mills and give him all the necessary impulse to qualify for mill management or mill ownership.

Here let me observe that it is not necessary for a boy to have money, or rich relatives, in order that he may become a millowner. It is only necessary that he have a head full of brains of a good quality and be willing to work for what he wants. There is probably not a mill of much size and length of life which does not furnish examples to prove this. The man who is one of the most vital human elements in the mill business of New England, if not absolutely the most vital, has not to strain his memory in the least to recall when he was operating a tip-cart in the mill yard. Nobody backed him financially. He simply plugged along, putting himself always in the most favorable attitude to do effective work for the mill and buying now and then a share of its stock. Finally he got into a position where sheer ability and willingness to work caught the attention of the managers. It is this disposition among the mill managers to seek for expert help among the operatives that constitutes one of the easiest understood attractions for superior help the New England mills offer. The young fellow who graduates into the mill as an operative, even in the humblest position, and then acquires a share of the stock, and works along up to be a second hand, then an overseer, is not likely to be a willing party to any movement or endorse any policy that may do damage to the mill, and so do damage to his prospects. So also the mill superintendent who has worked his way up from bobbin boy or yard laborer not only knows how to handle the operatives, but is in close and real sympathy with them. They know he knows the whole game, and that they cannot pull the wool (or the cotton) over his eyes. They know also that the superintendent who has been an operative is always looking among them for good material for overseers, second hands and the like.

There is opportunity similar to this in all mills of every kind everywhere in America, but here in New England the prize for the mill operative to work for, if he has ambitions to become a boss or an owner, are rather more attractive. It is a very glittering hope to aspire to a big job in any of the big mills of New England, and on the whole it is rather more in the line of possibility also.

It is never difficult to equip a new mill with first-class proved help in New England. That is one of the problems men who build new mills have not to worry about. They can go on and build and equip, knowing that when the day comes to make up their roster of operatives they will not have trouble or delay. The news that a new mill is to be built in Fall River will bring applications from all over the textile world for all the positions of any importance. If one position is not at once applied for, a word to that effect in

the right quarters will give the managers the choice among several thoroughly competent and well-recommended men, some of whom probably would forward applications from the mill districts of England or France or Germany.

Fall River is proud to claim that there has been but one strike among the operatives in her mills; to explain that that strike was the result of conditions which were as intolerable for the millowners as for the operatives, and to point out that the settlement was the result of careful consideration of the rights and necessities of both parties. This was in 1904, and the strike lasted 26 weeks. It was settled in the Massachusetts State House by an agreement to adjust wages upon the basis that labor should have a certain agreed-upon proportion of the difference between raw cotton and the selling price of the finished cloth. This basis was abandoned at the request of the labor unions after less than two years' trial. It was discovered that labor could not endure the fluctuations of the market; that that function belonged to capital, and the old labor scale in force before the strike was restored.

It is not to be inferred that operatives do not now get higher pay than they did before the strike. In 1904 the Fall River weaver of print cloth received \$16 for 50 yards, whereas now he receives \$19.63 for 48 yards. But the weavers earn no more now than then on account of working a less number of hours daily. Good mill men frankly acknowledge that the pay of mill operatives is too low; but, as an economic proposition, they cannot see how it can be increased at present. The only factors that will bring about higher wages are the condition of the market and the constant pressure of the unions.

Later I hope to show the side of capital in the working of the mills of New England, but here it is only necessary to state that the popular conception that these mills are the equivalent of money mints is not justifiable. They make money, some of them much money. As a whole they do not make more money than other industries or more money than they are entitled to make. Understand that the figures showing dividends paid are based upon under-capitalization, and that they represent in part the remuneration of both money and brains. If these elements are considered it will be found that the cotton mills of New England are not making any more money than such big enterprises ought to make. Perhaps not as much. Compare them with some big industrials; with the automobile business, for example. I have no particular friendship for the millowners. My sympathies are all with the workmen in these mills or elsewhere. But I believe that the workmen have been misled as to their rights, and as to the excessive share of profits going to capital. The trouble is that not enough recognition has been accorded to brains. The disposition of labor and capital has been to ignore brains and divide earnings between capital and labor.

In the New England mill centers there is a very marked disposition to study the condition and needs and rights of the operatives. The most ardent advocate of the rights of labor I have recently met is the son of one of the biggest millowners, himself born to the vocation of millowner, and occupying positions of trust in several large corporations. Yet since he graduated from college, some 15 or so years ago, he has given all his spare time and cash to well-planned attempts to put the operatives in better condition to help themselves. Not only has he done this, and got many others of his class to join in the work, but he has given himself to individual work which has resulted in his practically be-

coming of the operative class. He attends their weddings and their funerals, and he goes into their lives whenever his presence can be made to reduce the strain of a crisis or help to meet and ameliorate disaster. This is not so remarkable, as it is being done in all industrial lines. Its significance is that this man and his associates are doing what they are doing partly because they wish to make of labor the coordinate industrial element they perceive that it should be in order to trim and balance the general economic conditions that control the cotton manufacturing business. This instance is merely symptomatic.

It seems to me that the cotton men have got just a little farther along in the big task of solving the labor problem than some of the other industries, because while they still, and justly, classify labor as a commodity, some of them are being led to acknowledge that it is a human commodity. This puts them in the right attitude for study, and gives some hope of a proper solution of the labor problem in their business. It is a great help to the business in New England, and is one of the major propositions that it is necessary to understand if it is hoped to understand the cotton manufacturing situation in New England, and correlate it with the cotton manufacturing situation in the country at large. At first blush it may seem that the matter of thinking of the operatives as human beings as well as an inert commodity in industry could have but little to do with the supremacy of New England as a cotton manufacturing center. It really has very much to do with that question, as anyone who is willing to find out the facts and properly interpret them will discover.

Some time ago one of the "muck-raking" writers went to Fall River to make out a case against the cotton mills, and he did it. His method is disclosed by one item of his work: He found some tenement-houses built around a square, facing outward. Within the square he discovered old-fashioned privies, as he supposed, and in the center he saw a pump. His inference was swift that the sanitary buildings were in use, and that the families in the tenement-houses used water from the well, which must be contaminated from the privies. He never found out that the houses had been fitted with modern plumbing for several years; that they all had city water, and that the pump he saw had had no handle for years. The sanitary buildings had not been removed, and were used for woodsheds or some other like purpose.

Progress in the line of recognition of the human element in the labor problem has been far more rapid, and has got much farther along, than the millowners have been given credit for. It has been the task of the writers like this one who did not look for the pump handle, to make out the cases the sensational magazines wished made out. They were not in search of the truth, but of confirmation of theories built up in the monastic editorial offices of the magazines. The millowners have, in New England as a class, got ahead of the investigating magazines, and have actually begun to make conditions such as appeal to men who are something other and more than mill operatives. This has led to recognition of the homogeneous instinct among the people we in America somewhat arrogantly call foreigners. In these mill centers in New England the attempt to reconstruct every new arrival and make him over into a typical New Englander has been abandoned. In its place there is a disposition to encourage solidarity among the people of different nations. Thus there are in most of the mill towns sections exclusively devoted to people of like origin—

the French Canadians, the English, the Armenians, etc. The Irish have got beyond that, and they are better suited to mingle with the natives, if there are any natives. While the mill men may not take much pains to promote this solidarity among nationalities, they do recognize its value as a labor asset, and do nothing to disturb it. They know that the second generation of any of the foreign people will be genuine Americans, and all the better because of the contented life of their parents among compatriots and under conditions at least resembling those they had left behind in the old country.

To make a thorough study of the labor situation in the New England cotton centers would require a book, but it would lead to the same conclusion here indicated, that the handling of the labor problem, so called, by the mill men is one of the factors in the New England cotton manufacturing situation, and a factor that is of considerable consequence.

VIRGINIA BRIDGE & IRON CO.

Plans to Build Another Large Plant at Atlanta.

Because of increasing demand for its products and many extensive contracts steadily obtained, the Virginia Bridge & Iron Co. of Roanoke will add largely to its facilities at Atlanta. The present plant on Whitehall street in Atlanta will be doubled and moved to East Point, near Atlanta, where a large new plant will be erected on a four-acre site recently leased from the Atlanta & West Point Railway Co. The Virginia Bridge & Iron Co. wires the MANUFACTURERS RECORD regarding these additions and confirms a statement that may be briefly outlined as follows:

"The East Point plant will be equipped with the most modern machinery for the fabrication of bridges and structural steel for buildings and every purpose.

"The buildings, consisting of main shop, machine shop, templet shop, power-house and storage-houses, will be of steel and be manufactured in the present quarters. Extensive trackage and traveling-crane facilities will handle the large stock of structural shapes, plates, bars, etc., which, owing to the increasing response by local consumers to the advantages offered them to get these commodities at a moment's notice, instead of having to encounter delay and expense attendant upon ordering from distant mills, will make the largest and most complete stock carried in the South. Our Atlanta offices will be continued and will shortly be located in one of the large office buildings, with an increased force of clerical and engineering assistance.

"The Virginia Bridge & Iron Co., with headquarters at Roanoke, Va., and branch plants at Memphis, Tenn., and New Orleans, La., is the second largest independent bridge company in the country, both in point of financial and physical resources, and the largest one operating exclusively in Southern territory. Only Southern capital is invested in this enterprise, which, under the able guidance of C. Edwin Michael, its president, has grown in a period of 15 years from a small beginning to its present condition, having a capital of \$1,250,000 and a capacity of 100,000 tons per year.

"The officials in charge of the Atlanta plant are: J. W. Leroux, district manager; John McCleary, Jr., assistant district manager; R. H. Kelly, secretary, in charge of the city office, and G. M. Hubbard, superintendent, in charge of the plant."

A dispatch from Galveston says that R. J. Hamp of that city contemplates operating light-draft steamers to Lake Charles, La.

THE MUNSEY BUILDING.

Its Part in the Evolution of City Sky Lines.

The rapidly-rising Munsey Building in the place of the Baltimore News Building, recently razed, is shown in the accompanying illustration made from a photograph, which includes the Maryland Casualty Building. These two buildings are on corners of the same block, and when the new Maryland Casualty Building is completed will afford a striking sky-line effect in the business center of Baltimore. The work of dismantling the old City Hotel to make room for the Maryland Casualty addition is also shown in the photograph. The older buildings between these two soon-to-be-completed modern tall buildings are all substantial buildings erected since the Baltimore fire, and a comparison between them and the Munsey Buildings affords an effective illustration of the evolution of modern city sky lines.

It may safely be presumed that a few

In addition to this effective organization, the best methods and equipment available were used by the contractors, including electric hoists, patent scaffolding for rapid bricklaying, pneumatic tools for every available purpose, oxygen blow-pipe cutters, etc.

The Munsey Building is being constructed of steel and terra-cotta, with face-brick curtain walls above the Bedford limestone walls of the lower floors. The floors and partitions are filled in with terra-cotta, and a considerable amount of ornamental terra-cotta is used in the building.

Illustrative of how many contractors and supply men are identified with the building of a modern skyscraper and from how wide a range of the country they come, it may be interesting to give a list of the contractors and supply men who are identified with this building. The structural steel is furnished by the Jones & Laughlin Steel Co. of Pittsburgh.



years more will find the low space in this sky line filled up with high buildings.

The speed with which a "skyscraper" can be erected accelerates the changes in sky lines, and this rapidity of work in the case of the Munsey Building is especially noteworthy. When it was decided to raze the News Building, 90 days were allotted for its removal and 15 months for the completion of the Munsey Building, which is to continue to be the home of the Baltimore News. When the 90 days had expired the old building had not only been razed, but the steel work of the new building was up to the eleventh story, and such progress has been made that it is believed the Munsey Building will be completed five months ahead of contract time. This rapid work is ascribed to the fact that by the effective organization of the George A. Fuller Company of New York, under the immediate supervision of J. G. Bent, the local superintendent, every piece of work has been laid out and fully provided for well ahead of its execution, so that no time was lost by one piece of work or set of men being required to wait for another. The work has proceeded with clocklike precision and has also been free from serious accidents of any kind.

through its Southern branch, Arcade Building, Philadelphia; the face brick by the Hydraulic Press Brick Co. of Washington, through its Baltimore branch; the common brick by the Burns & Russell Company, Baltimore; the terra-cotta for floors, partitions, etc., by the National Fireproofing Co., Perth Amboy, N. J.; the ornamental terra-cotta by the New Jersey Terra-Cotta Co., Perth Amboy, N. J.; "Kittanning" brick, made impervious to water, for the press pit and pressrooms, furnished by W. A. Mills, Washington; granite and granite work by D. M. Andrews & Co., with granite from the North Carolina Granite Corporation, Mt. Airy, N. C.; maple flooring by W. D. Gill & Son, Baltimore; all planks, heavy and rough lumber, under flooring, etc., by the N. W. James Lumber Co., Baltimore; electric motors by the General Electric Co., Schenectady; mechanical and electric hoisting gear by the Lidgerwood Manufacturing Co., 96 Liberty street, New York; air compressors by Ingersoll-Rand Company, 11 Broadway, New York; pneumatic tools supplied by the H. G. Kotten Company, 30 Church street, New York; Dallett Pneumatic Tool Co., 23d and York streets, Philadelphia, and Cleveland Pneumatic Tool Co., Cleveland, O.; sand and

crushed stone by the Arundel Sand & Gravel Co., Baltimore; part of the sand by Filbert Paving Co., Baltimore; part of the crushed stone by the Schwind Quarry Co., Baltimore; hoisting buckets by G. L. Stuebner & Co., 12th street and Vernon avenue, Long Island City, N. Y.; wire cables by the Hazard Manufacturing Co., 50 Dey street, New York. The scaffolding, extending completely around the building, which has attracted considerable attention in this work, is that of the Patent Scaffolding Co., 647 West 50th street, New York. It is so constructed that the bricklayers can hoist the scaffolding by means of hand gear as the work progresses. It is hung on the outside of the building from strong overhanging girders, and the hoisting gear is rove over drums attached to the scaffold. A great saving of time has been effected in the masonry work by the use of this scaffolding.

The plastering will be done by D. S. Schaffer, Baltimore; the plumbing by the W. G. Cornell Company, Everett Building, New York; heating boilers, steam piping, etc., of the heating system will be put in by Thomas C. Bassor & Co., Baltimore; electric work will be done by the Lord Electric Co., 213 East 40th street, New York; the electric elevators will be furnished by the Otis Elevator Co.; the limestone used in building the lower walls is supplied by the Reed Stone Co., Bedford, Ind.

An illustration of the Maryland Casualty Building, with 328-foot tower, as it will appear when completed, was shown in a recent issue of the MANUFACTURERS RECORD. The work of clearing away for the construction of the extensive addition is shown in the accompanying photograph, the location of the derricks on top of the present Maryland Casualty Building as shown being the first important move in this work. Otto Simonson is the architect and John Waters the contractor, both of Baltimore.

Commissary Managers.

Bearing upon the convention at Chicago August 22-24 of the National Commissary Managers' Association, the statement is made by Secretary Tracy D. Luccock, Chicago:

"It is a well-known fact that practically every coal mine, sawmill and cotton plant situated in an isolated location finds it both necessary and profitable to operate a general store for the convenience of employees and their families. It has been estimated that there are over 7000 such general stores. These establishments go under various names, such as commissaries, supply stores, company stores, etc., but all are operated on the same general plan, and they have in common many problems that do not confront any other class of general stores. Realizing the advantages of co-operation and the benefits to be obtained from closer affiliation with each other, managers of lumber and sawmill commissary stores met in Baltimore in July, 1910, and formed the National Lumber Commissary Managers' Association. No sooner had the organization been effected than store managers in coal, cotton and others industries asked for admittance, and it was unanimously decided by all concerned to drop the word 'lumber' and change the name to the National Commissary Managers' Association. In less than a year this membership of the organization has grown from a handful to nearly 500, all active managers of commissary stores."

The officers of the association are: B. M. Leiby, Dutton, Fla., president; Albert Evans, Orvisburg, Miss., and J. M. C. Duke, Wallacetown, Va., vice-presidents, and Tracy D. Luccock, Chicago, secretary and treasurer.

Activities for Progress in West Virginia.

[Special Correspondence Manufacturers Record.]

Wheeling, W. Va., July 1.

The spirit of progress and optimism is abroad in West Virginia. This is reflected by men engaged in all lines of business, who seem to realize that at last investors and manufacturers are beginning to appreciate the wonderful value, extent and adaptability of the State's many varied natural resources and are turning their eyes in this direction in order to establish plants for developing them.

In the visit made to the principal towns in West Virginia along the Baltimore & Ohio Railroad your correspondent was especially impressed with the renewed activities of the various commercial organizations in those cities. These bodies are being recognized and rejuvenated. More of the progressive business men of the various cities are becoming directly interested in them and are giving their time and efforts in order that their respective communities may derive the most benefit from the attention which is now being directed toward the State.

Perhaps no influence has had a greater beneficial and stimulating effect upon the present encouraging outlook than the broad-gauged advertising campaign recently inaugurated in the MANUFACTURERS RECORD by the Baltimore & Ohio for the purpose of centering the interest of investors, manufacturers and homeseekers in the wonderful possibilities of West Virginia. On every hand there is a consensus of opinion that the time has come for some aggressive work on the part of those having an interest in West Virginia to attract to its borders those who will take advantage of the opportunities offered by the State's resources.

West Virginia's coal and timber have a world-wide reputation. These exist in such enormous quantities that most people heretofore have thought that they were the only resources the State possessed. So great were they in extent that they completely overshadowed the many other mineral deposits that are to be found in West Virginia in practically inexhaustible quantities, including limestones, clays, iron ores, glass sands, natural gas, oil, etc. Of course, there has been some development of these resources, but none of them has been developed in keeping with their quality and extent. It is unquestionably a fact that West Virginia possesses raw materials of quality and extent that offer unusual inducement for a variety of industries. And when its location is considered in the heart of our greatest industrial activities and within easy reach not only of the leading consuming markets of this country, but also through the Atlantic seaboard of the markets of the world, this is truly an ideal State for the establishment of industries.

For the development of its resources, West Virginia has magnificent railroad facilities. These have been built along the most modern lines for the purpose of taking care of the great coal tonnage of the State, so that those locating within its borders will not have to undergo the trials and tribulations of insufficient railroad service, but will find awaiting them facilities that are unsurpassed. In that section covered by the Baltimore & Ohio they will find a system that is thoroughly perfected to take care of all traffic, and one which, with its many branches and connections, can place finished products in the greatest markets of this country. Moreover, they will find a road that al-

ways co-operates to the fullest extent not only with those established industries in its territory, but also with those seeking locations for new industries.

It was no doubt with a full realization of the great possibilities of the territory covered by its lines in West Virginia that the Baltimore & Ohio has mapped out an aggressive campaign for its development. The faith of the Baltimore & Ohio in West Virginia is perhaps more strongly evidenced by the statement that it has probably spent more money on its track in West Virginia than in any other State through which it passes, and it is now engaged in betterments of large magnitude in many different sections of the State, as strikingly detailed in the article covering these improvements in the MANUFACTURERS RECORD of June 15.

The West Virginia State Geological Survey has made some quite extensive investigations of the State's various natural resources. Reports on these investigations have been published by the State in bound form, and one who reads them cannot help but marvel that a single State possesses within its borders deposits of minerals to such an extent and value. Among the more important of these resources may be mentioned limestones of great extent and wonderful purity, that offer to manufacturers of Portland cement, hydrated, agricultural and other lime products, fluxing stone, etc., exceptional opportunities; rich clays suitable for the making of building brick, fire-brick, paving brick, pottery, terra-cotta products, roofing tile, etc.; iron-ore deposits suitable especially for the manufacture of open-hearth steel; glass sands of exceptional purity and adaptability for the manufacture of the finest grade of glassware; oils, timber, salt, building stones, etc.

These resources do not exist in a few scattered pockets here and there, but they are all extensive, and most of them practically inexhaustible. One of their most striking features, too, is the fact of their exceptional purity, making them available for the manufacture of the finest grade of products.

These indeed would be sufficient for any State to boast of, but when one considers that in connection with them there is also an inexhaustible supply of natural gas for the manufacture of products from these resources their importance and value are considerably enhanced.

During 1909 it was estimated, from such sources as data was available, that the output of natural gas in West Virginia was 156,435,000,000 cubic feet, and less than one-third of this was consumed in the State, the rest being sent to adjacent States. This figure, however, does not approach the capacity of the State's gas wells, because it is said on good authority that within a 25-mile radius of Clarksburg, which is in the center of the State's most productive gas fields, the capacity of the wells in that section are sufficient to produce 1,000,000,000 cubic feet daily. This natural gas is sold to manufacturers in West Virginia at prices ranging from 4 to 10 cents per 1000 cubic feet, according to the location and other manufacturing conditions. In comparison with coal, water-powers and other methods of producing power, there is none as cheap as this. Always back of this, and insuring additional cheap power, is the fact that 51 of the 55 counties of the State are underlaid with vast coal deposits of the

finest grade in the country, so that manufacturers locating in West Virginia, even if the gas supply might at some future time become exhausted, can obtain coal cheaper than it would be possible in any other section.

When one considers all of these facts, there is wonder that capital and investors have not sooner appreciated the magnificent opportunities awaiting them in West Virginia.

They are, however, awakening to these opportunities, and each year sees additional plants of large caliber being located within the State. But what has been accomplished is as nothing compared with the great possibilities available. West Virginians feel that they are on the verge of the greatest period in the State's industrial history, because at last its resources are being given the consideration they merit. They are not slow to see the drift of affairs, and consequently, as previously referred to, are laying their plans so as to take advantage of every opportunity that is offered for expansion industrially.

One of the most encouraging parts of this work is that the various communities are co-operating in it. Perhaps no State has a more efficient State Board of Trade than West Virginia. This organization embraces in its membership those industrial, financial and commercial leaders who have made West Virginia what it is today, and, in addition to all of them working individually for their own particular communities, they are working collectively through their State body. There can be but one result from such co-operative work, and that is, the development of the State along the broadest possible lines.

In every community visited by your correspondent was he impressed with the liberal treatment accorded established and organizing enterprises by the banks. They work hand in hand with the trade organization of their city for its advancement along broad business and industrial lines.

Another striking feature of the State's development is the growing number of interurban electric railway lines. These connect up a number of important cities and outlying sections. They are always being extended to keep pace with the growth of the territories they serve, and at this time a number of new projects of large magnitude are being organized, the result of which will provide the State with interurban lines connecting up a great many of its principal cities.

To give some idea of the recent and present activities going on in the several towns visited a brief reference, without any attempt to go into a general description of each community, will prove of interest as indicative of how West Virginia is expanding in all directions:

Wheeling, the largest city in West Virginia, is located on three trunk lines—the Baltimore & Ohio, Wabash and the Pennsylvania railroads—and together, including smaller lines, there are nine railroads serving the city. It also has the advantage of water transportation on the Ohio River, so that excellent shipping facilities are available. A belt line connecting all of the railroads entering Wheeling is also operated. Manufacturers are allowed the same freight rate that applies to Pittsburgh on all raw materials and finished products to and from all points within a 100-mile radius.

Wheeling's principal manufactures consist of iron, steel, tinplate, glass, tobacco, stoneware, sanitary ware and chinaware products. Numerous other articles are also made in this city. Wheeling possesses plants of such important concerns as Wheeling Steel & Iron Co., La Belle Iron Works, American Sheet & Tinplate Co.,

National Tube Co. and the Carnegie Steel Co., which in themselves are evidences of the value of Wheeling's location as a manufacturing center.

Natural gas is used almost exclusively for industrial purposes, the price for this ranging from 10 to 15 cents per 1000 cubic feet, according to the amount consumed. In addition, Wheeling's industries always have the great coal deposits of the State to fall back upon, and coal can be obtained in Wheeling at a cost of about \$1 per ton.

Faith in Wheeling's future is evidenced by the fact that the Baltimore & Ohio has recently spent between \$2,000,000 and \$3,000,000 in improving its freight and passenger service, and the city has now one of the finest stations along the company's line. These improvements acted as an impetus to others, and there have since that time been erected in Wheeling, among others, such buildings as the Y. M. C. A. Building, West Virginia Public Library, Schmullbach Office Building and Dollar Savings Bank Building. The Schmullbach Building, which covers a large area and is 12 stories in height, is the largest office structure in the State. The Dollar Savings Bank Building has just been completed at a cost of \$100,000, and it is a splendid example of a modern banking house. It is one story in height, and will be devoted exclusively to the bank's business. In decoration and design, both interior and exterior, it is thoroughly in keeping with the dignity and standing of the institution. Another important improvement being made, to cost \$150,000, is that of the German Bank, which is housed in the historic Washington Hall. The National Exchange Bank is also to add two stories to its present office building.

One of Wheeling's most progressive industries is the manufacture of stogies. These plants run continuously throughout the year, and it is estimated that during 1910, 150,000,000 stogies were made. The Pollock stogie factories, which employ 600 people, is to build a nine-story factory building for the purpose of putting the industry under one roof. The Marsh stogie factory has two plants, and has just completed a new one which will employ 500 people.

The McClure Hotel is having plans prepared for a 100-room annex, which will be modern in every respect. The Wheeling Can Co. is doubling the capacity of its plant. The Wheeling Electrical Co. is erecting a new plant in South Wheeling at a cost of \$500,000. Extensive improvements are also being made to its large power-house by the Wheeling Traction Co.

An evidence of the public spirit abroad in Wheeling is shown by the raising in a short period of \$150,000 through the Board of Trade to build a market-house and auditorium. An illustration of this building appeared in the MANUFACTURERS RECORD of June 29. The design of the market-house is imposing and dignified, and will prove an important acquisition to the city's public buildings.

The fact that Wheeling's business men are not too busy to look after the welfare of the working classes in the city is shown by work of the Playground Association, which was formed by them for the amusement of the children. Three large playgrounds have been established and equipped with various apparatus for the children's pleasure. The grounds are presided over by school teachers, and they will unquestionably have a beneficial effect on the morals and training of the class of children which are reached.

Wheeling is surrounded on all sides by a number of small industrial towns, including not only those in West Virginia, but also several in Ohio, all of which trade

in Wheeling, so that while the population of Wheeling proper is about 42,000, the population of the Wheeling section which is dependent upon it is approximately 150,000.

In addition to having an excellent street railway system, there are a number of interurban lines extending in different directions from Wheeling which connect with all of the important industrial towns around it.

Huntington is one of the most attractive cities in West Virginia. It would be hard to find a more desirable location for the establishment of a thriving industrial business and home city. It lies on a broad, level plateau, which is sufficiently large in extent to provide for its growth in the future. When the town was organized it was laid out along well-defined lines, and these have been closely followed as the city expanded. Its streets are broad and well paved, and all houses set back a certain distance from the sidewalk, thus giving a very pleasing appearance.

Huntington, in addition to being an important industrial and business center, is noted as a city of homes and educational facilities. A great many of those living in the city have established homes in Huntington for the purpose of educating their children.

In looking about for the real cause of Huntington's steady and substantial growth, it is easily found in the fact that the city has a great variety of manufacturing industries. It is not dependent upon any single one for its existence, consequently business is always good in Huntington. Through its Chamber of Commerce the business interests have displayed a broad spirit. They co-operate to the fullest extent with those desiring to establish industries there, and it has been this spirit which has proven such an important factor in Huntington's growth.

Since taking in Guyandotte, Huntington has a population of 35,000, according to the school census. Huntington has 22 miles of paved streets, and recently voted \$400,000 for the improvement of other streets, building sewers and purchasing a site for a new city building. Last May the county voted \$300,000 in bonds for beginning the construction of brick highways.

One of the things that strikes the visitor to Huntington at this time is that of the great amount of new building work now going on. This includes not only manufacturing plants, business buildings, hotels and public buildings, but a great number of new dwellings. The character of the dwellings being erected are in themselves evidences of the substantiality of its people. For the most part these houses are of brick construction, well designed and well built, and are equipped with all modern conveniences. The most encouraging part about them is that these houses are owned by those living in them.

Huntington's location and railroad and water shipping facilities are such that it draws business from a wide area, covering sections of the three States of West Virginia, Ohio and Kentucky. Huntington is also quite an important jobbing center on account of its location, and all of the principal lines are handled by its warehouses.

An important influence in the city's growth has been the liberality of its banking institutions, which have never hesitated to co-operate with those establishing new enterprises in its midst. During March past five new enterprises were located in Huntington through the efforts of the Chamber of Commerce. These included four woodworking plants and one gas-engine plant. Several other important concerns are being considered now, and

there is every reason to expect that they will find suitable locations.

The list of articles made in Huntington is a very extensive one, too long to be given here, but there are a great variety of wood-working, clayworking, iron and steel, leather and glass industries.

Some idea of Huntington's growth may be had from the following table of statistics:

	1900.	1910.
Banks.....	3	9
Capital stock and surplus.....	\$397,000	\$1,700,000
Deposits.....	\$1,400,000	\$4,700,000
Miles paved streets.....	3.2	22
Sewers.....	8	25
Schools.....	10	16
Real estate transfers.....	198	1,360
Postoffice receipts.....	\$24,704	\$85,069
Population.....	11,923	31,161

Natural gas is burned almost exclusively, both for domestic and manufacturing purposes. The rate for manufacturing purposes is governed by the amount used, but it is quite an attractive one.

Huntington has the advantage of two trunk lines, the Baltimore & Ohio and the Chesapeake & Ohio, while the Norfolk & Western Railway, which is but six miles away, is reached by a switching charge. Being directly on the Ohio River, it also enjoys the advantage of water transportation. There is quite an extensive interurban electric railway system running from Huntington. This connects up a great many towns with the city, and extends as far as Ashland, Ky., and Ironton, O.

As the largest city in the vicinity of the great development going on in Eastern Kentucky, it is but natural that a great deal of business should be derived by Huntington from this section, and it is now furnishing large volumes of supplies and equipment to those undertaking new work in that section.

One of Huntington's most unique plants is that of the United States Bung Co., which manufactures bungs exclusively and ships them to all parts of the world. This company is now building a pulp plant to utilize its waste materials. Another interesting set of industries are five plants manufacturing furniture for the home. These different plants make tables, chairs, sideboards, buffets, bedroom suits and mattresses. Each works in the interest of the others, and salesmen from one house in going on the road always carry samples and prices from the others, so that salesmen from each house are equipped to sell dealers with complete furniture for the home. This co-operative spirit is felt by all of them in the increased amount of business obtained.

A most interesting plant is that of the H. R. Wyllie China Co. This plant has a thoroughly modern pottery, and it is making the highest grade of chinaware and art pottery. Among Huntington's large established industries are the Chesapeake & Ohio Railway shops and the branch plant of the American Car & Foundry Co., both of which employ large numbers of men.

On account of West Virginia's proximity to the tobacco fields of Kentucky, a very large tobacco warehouse was established in Huntington last fall, and it is handling a great quantity of Burley tobacco. It is estimated that in the first year they will handle 12,000,000 pounds, in the second year 24,000,000 pounds and in the third year 50,000,000 pounds. Thus is Huntington becoming an important tobacco-selling market, and in view of the large amount of raw materials assembled at this point, an excellent opportunity is offered for the establishment of tobacco manufacturing plants of various kinds.

The Baltimore & Ohio has recently made some extensive improvements in its freight and passenger shipping facilities in Huntington. A steel, brick and concrete freight shed 38x375 feet long has been erected. This is equipped with all

modern facilities for handling freight. The platform track holds 25 cars, while the house tracks hold 35 cars. A team track is also available for loading freight from the cars into wagons. The entire freight yard was also raised 30 inches. The passenger station is also being re-modeled and brought up to date. The people of Huntington have been much pleased with the improvements which the railroad has made in the city.

Parkersburg, W. Va., is known as one of the home towns of West Virginia, on account of the great number of workmen who own their own homes. The city is located on the main line of the Baltimore & Ohio on the way to Cincinnati, and has excellent railroad shipping facilities in all directions, in addition to having the advantage of river transportation by being on the Ohio River.

The city has a number of diversified industries, which has been one of the reasons for Parkersburg's steady growth and advancement. Among the important industries of recent years located in Parkersburg are the Vitrolite Company and the Baldwin Tool Works. The Vitrolite Company manufactures white slabs which are used for interior tile work, such as wainscoting, bathroom work, etc. The Baldwin Tool Works, formerly located in Columbus, O., moved recently to Parkersburg, and have quite a modern plant for the manufacture of shovels of all kinds. This company, of course, was not a new industry, and its products were well established on the market. Since locating in Parkersburg they have been unable to supply the demand for their shovels.

An interesting new industry being established in Parkersburg is that of the Lessell Artware Co., which is just beginning operations. This company will manufacture artistic pottery ware, and will use clays coming from the south side of the Little Kanawha River. Several pieces have been made of this material, and they evidence its peculiar suitability for high-class pottery work.

Wood county, in which Parkersburg is located, last April voted \$180,000 in bonds for the building of 10 miles of good roads. These are to be constructed of vitrified brick on four-inch concrete base.

Parkersburg has ten banks and one trust company, and they have all been important factors in the growth of Parkersburg, due to their liberal treatment of those establishing industries. A number of bankers in this city are at present working on a plan to build a 3000-foot bridge across the Ohio River into Ohio in order to draw the trade of that section into Parkersburg. This bridge is to cost about \$500,000, but the business interests feel it would be well worth the investment considering the large amount of trade that would be drawn into the city by it.

Parkersburg has quite a large and interesting shoe factory, the product of which is sold over quite a large territory. In addition Parkersburg has a number of woodworking, clayworking, iron and steel plants, as well as others of diversified character, all of which go to make up a strong, substantial and growing community.

The adaptability of this section for the growth of apples and other fruits, it being demonstrated by the Rosemar Orchard Co., the moving spirit of which is Mr. Frank P. Moats, an attorney in Parkersburg. Mr. Moats has always been a great believer in the possibilities of the country around Parkersburg for horticulture, and with some other men purchased 200 acres of land five miles from the city and located on the hills bordering the Ohio Valley. Nine thousand new trees were planted, and the old trees were trimmed and sprayed.

The latter are expected to give from 1000 to 2000 barrels this year. In addition to growing apples, the principal one of which is the Rome Beauty, which is famous in this section, other fruits, including peaches, pears, plums, quince and berries and grapes, will also be raised.

Clarksburg is located in the heart of the most extensive natural gas, coal and timber section, and is within short reach of many other valuable raw materials. As a result, quite a number of important industrial plants have been located at this point and have been able to build up prosperous enterprises. Perhaps Clarksburg's greatest asset is its natural gas. It is conservatively estimated that the capacity of the gas wells now existing within a radius of 25 miles of Clarksburg will produce a daily output of 1,000,000,000 cubic feet. When it is considered that this fuel is sold to manufacturers at the rate of four cents per 1000 cubic feet, it is readily seen that here is found the cheapest fuel possibly obtainable. Natural gas has been the magnet that has drawn and will continue to draw important industries to Clarksburg.

A striking incident of the advantages of this section is shown by the experience of one of the big plants located here. This plant had so grown that it felt an additional plant was necessary. In order to be sure in the location of its new plant that manufacturing conditions would be the most favorable possible from every standpoint, investigations were made of possible locations throughout the country. The result of these investigations was to locate the new plant within eight miles of the old one. The value of this section was further emphasized by the fact that this manufacturer was able to buy 50 acres of coal lands right at his plant, in order to safeguard himself in the event that the natural gas should at some future date give out.

At present Clarksburg has eight large glass plants, employing about 1500 men, and a large sheet and tinplate mill, employing 1100 men, and two important zinc spelter plants, employing 1200 men. In addition it has a number of woodworking plants, potteries, flour mills, clayworking plants and other diversified industries, so that it is readily seen from an industrial standpoint the city is steadily advancing.

The city itself is quite an attractive one from the viewpoint of its business and residence buildings and the municipal conditions. It has several large modern office buildings, banking structures and a large, well-run hotel that would be a credit to any city. There are eight banking institutions in Clarksburg, having combined resources of \$9,000,000, and they do not hesitate to co-operate with the Board of Trade for the location of legitimate enterprises. Clarksburg has a very important back country from which to draw business. Harrison county, in which it is located, is the second county in the State from the standpoint of taxable valuation. Moreover, as previously stated, it is in the heart of a very extensive coal and timber section; in fact, the section below Clarksburg, and covered by one of the branches of the Baltimore & Ohio, is claimed to be one of the richest in the country in the way of value of natural resources, and it is even claimed that the resources in this section will equal in value the silver and gold deposits of Colorado.

In addition to its various industrial enterprises, Fairmont is in the center of one of the greatest coal developments in the United States—that of the Consolidation Coal Co., which has its principal offices in this city. Through the West Fork and other valleys near Fairmont the Consolidation Coal Co. has 48 coal mines, producing

annually 7,500,000 tons of high-grade bituminous coal and giving employment to more than 10,000 men. The centering of this vast industry in Fairmont has been an important factor in its growth and development. In order to house the offices of this and other enterprises in which the Consolidation Coal Co. are interested, they recently erected a splendid nine-story modern stone-front office building.

In addition to being on the main line of the Baltimore & Ohio, Fairmont enjoys water transportation, as it is at the head of slackwater on the Monongahela River, thus offering an additional outlet for the products of its industries.

Fairmont is also located in the great natural gas belt of West Virginia, and this fuel is supplied to manufacturers for five cents per 1000 cubic feet. The supply is controlled by local people, who by their liberality and broad arrangements have been the means of attracting to Fairmont some very important diversified industries.

Fairmont is also situated so as to take advantage of the valuable resources in the territory along the Richwood branch of the Baltimore & Ohio, and it is well located in regard to the important clay, glass sand, limestone and other raw materials abounding in the State, the result of which enables Fairmont to offer attractive arrangements for the establishment of industries at the point where raw materials can be assembled cheaply, the manufacturing cost is low and the distribution facilities excellent for reaching wide consuming markets.

From Fairmont several interurban electric railway lines extend in different directions. They connect the city up with Clarksburg, Bridgeport, Mannington and other intermediate points.

One of Fairmont's most interesting industries is that of the Fairmont Mining Machinery Co. This plant manufactures special equipment for mines and sends its products into many different parts of the country. It employs quite a large number of men.

In addition to a number of glass plants, Fairmont is the home of one of the most modern bottle-making plants in the country. This is the plant of the Owens West Virginia Bottle Co. Contrary to the usual plant of this kind, this one is operated entirely by automatic machinery, no skilled glass men being employed, the only mechanics being machinists that are kept on hand to make such repairs as may be necessary from time to time. So thoroughly is this plant equipped that from the time the raw material enters at one end on a trestle until the bottles are completed ready for packing not a single hand touches them. The product is not only more uniform in weight and shape, but it presents a better appearance than hand-made bottles. The initial installation was six machines, with a capacity of 200 gross of bottles per day of 24 hours. Six additional machines are now being put in, which will double the capacity of the plant, and when this addition is completed it is planned to add three more machines, so that when completely finished the plant will have a capacity of 3000 gross bottles, or over 400,000 bottles daily. This bottle company was attracted to Fairmont on account of the great supply of natural gas and the favorable arrangements made by the local people in regard to using it.

Fairmont business men have just organized a new trade body to be known as the Chamber of Commerce. The leading business men in various lines are giving the new organization their earnest support, and are actively participating in its work, both as officers and members of committees. The Chamber of Commerce is planning a very active campaign for

securing new industries and the expansion and improvement of the city generally. They are going to extend every encouragement to those desiring to locate in Fairmont to take advantage of the opportunities offered there by reason of the city's ideal location in relation to the varied resources of West Virginia.

Every indication points to Grafton entering upon a new industrial expansion. In addition to the Baltimore & Ohio erecting a new passenger station to cost \$125,000, it has also built two new 16-track railroad yards for the classification of freight trains, the eastbound yard having a capacity of 400 cars and the westbound yard 420 cars. Grafton is the terminal of four divisions of the road, which makes it a very important point for assembling and distribution.

A splendid new hotel is being erected, this to be seven stories in height and to cost \$125,000. The Government is also to erect a new Federal building to cost, including the site, \$200,000. Thirty-five new residences are in course of construction, and the spirit of activity is noted on every hand. In fact, it is stated that more improvements have been undertaken in the city during the past year than in the last 5 or 10 years. At present Grafton has several glass works, tile and woodworking plants, brickmaking plants and other industries of a varied character, but when its location is considered, together with its railroad facilities for reaching out into so many different directions, its closeness to a supply of so many raw materials, there is every reason to predict a steadily-growing expansion of the city.

While the foregoing necessarily gives but a cursory glimpse into the resources of this remarkable State, they should be sufficient to arouse the curiosity and interest of those who in these days of economic industrial operation are seeking locations for industries at points where they can be conducted to the best advantage. The outline here of the opportunities of West Virginia, the developments that have taken place, the co-operative, enthusiastic attitude of its people have not in any sense of the word been exaggerated; rather has the subject been treated in a very conservative manner, and those who will investigate for themselves will find far more than they have expected. It is indeed surprising that capitalists and investors have not earlier devoted their attention to this section.

Consider for a moment: West Virginia has limestones of great purity, shales, clay, natural gas and coal, all of the raw materials necessary for the manufacture of Portland cement, and yet there is but one plant in the State making this product, which is so widely used.

West Virginia has large deposits of iron ore in the eastern part of the State, also limestone and coking coal of high quality, and yet there is not a single blast furnace making pig-iron from these deposits.

West Virginia has rich clays suitable for the manufacture of brick of all kinds, pottery, stoneware, etc., and yet there are but few plants making such products.

And so we can take up the various resources of the State outside of coal, and none of them have been developed in keeping with their extent and value. Capital and industry, however, are not going to allow these deposits to remain comparatively dormant much longer; in fact, those who have been keeping in touch with the trend of events in relation to West Virginia industrially feel that the State is on the verge of the greatest period of its history from a manufacturing standpoint. It has been these conclusions that have caused such widespread optimism among the business interests of the State, so that

no time would be more opportune for the investigation of the State's possibilities and location of industries than now.

Those doing so will be met with great encouragement and co-operation.

WM. H. STONE.

Charleston Fertilizer Industry

[Special Correspondence Manufacturers Record.]

Charleston, S. C., July 1.

What cloth is to Lowell, furniture to Grand Rapids or iron to Pittsburg, fertilizers are to Charleston. They are the life of the city. They keep the railroads working and bring ships across the ocean from the antipodes. Great manufacturing plants stand in the suburbs, and 12 of these, situated side by side on the east bank of the Ashley, form a city of themselves. They represent an investment of millions of dollars, and employ thousands of hands, who annually draw millions in wages. They utilize the resources of widely-separated parts of the earth, calling for pyrites from Spain, potash from Germany and nitrates from Chile.

The railroads carry out of Charleston more than 100 carloads of fertilizers for every day of the year except Sundays. During the busy season, from February to May, more than 500 carloads a day are moved from week to week. That is equivalent to one train over four miles long for each day. Last year's shipments of fertilizers aggregated 606,709 tons, more than half the freight sent out of the city. Those figures have been almost equaled already this year. Up to the first of June shipments reached 514,634 tons, so with seven months yet to be heard from, the mark of 1910 will be left considerably behind.

The fertilizer industry has not only been the mainstay of Charleston in her darkest commercial days, but also the chief instrument of her redemption and of building up for her a foreign import trade greater than the combined foreign importations of all the Atlantic coast cities south of Baltimore.

And the industry is not yet 50 years old. It had its inception in the discovery of phosphate rock, on the lowlands about the city, in the summer of 1867. What had been noticed long before by various geologists and called "marl stones" by Tounsey were then shown by Dr. St. Julien Ravenel of Charleston and Dr. N. A. Pratt of Georgia to be in reality phosphate rock, containing from 35 to 67 per cent. of bone phosphate of lime, the basic element of commercial fertilizers. Dr. Ravenel, with associates, had already formed the Wando Fertilizer Co. and erected a small plant upon one of the city wharves for the reduction of Navassa rock, of which an experimental importation of 90 tons was ordered. The discovery of the local phosphate rock, however, preceded the arrival of the Navassa rock, which, consequently, was not used, but later reshipped to Baltimore. Dr. Pratt and Prof. Francis S. Holmes, a local geologist, whose knowledge of the phosphate rock deposits was more extensive than that of any other man, with the aid of Philadelphia capitalists, organized the Charleston Mining & Manufacturing Co. in November, 1867. This company, which had a paid-up capital of \$1,000,000, acquired without delay much of the best phosphate lands on both sides of the Ashley River and at once began to mine rock, but did not commence manufacturing fertilizers until about a year later. Before the end of 1867 both companies had made small shipments of rock North, the Wando company to New York, the Charleston company to Philadelphia. The former was already making fertilizers with sulphuric acid brought from Baltimore.

The Sulphuric Acid & Superphosphate Co., formed by the Pratt-Holmes syndicate for manufacturing purposes, was organized in May, 1868. Works were erected

above the city line, on Town Creek, an arm of Cooper River, and there the first sulphuric acid produced south of Baltimore was made on December 8, 1868. The company began with one set of acid chambers, but soon added a second, one of which, 140x30x25, was at that time the largest single chamber in the United States. The two sets of chambers had a capacity of 180,000 cubic feet and consumed 7200 pounds of sulphur in 24 hours. This plant was called the Etiwan Works, from the Indian name for Cooper River, and when, after many years, it changed ownership, that name was taken by the new company.

The process of manufacture is briefly this: The rock, received washed and kiln-dried from the miners, is reduced by specially designed centrifugal crushers to an exceedingly fine powder. The powder is next treated in closed mixing pans with sulphuric acid to make the phosphate soluble, the mixing being made effectual by revolving blades. The resultant semi-fluid mixture is then conveyed in cars to drying bins, where it remains for a day or two, and when taken out is known to the trade as acid phosphate. This is the basis of all fertilizers, which are completed by the addition of nitrates, such as blood, tankage, fish scrap and potash. There are different formulas for different grades, and each company has a different formula for the same grade. The usual proportion is about 1200 pounds of acid phosphate to the 2000-pound ton of fertilizer.

Sulphuric acid was, as indicated above, first produced by the reduction of crude sulphur, but that proved too expensive a method. The acid is now secured by the reduction of iron pyrites, imported chiefly from Spain and Portugal. As nearly all of the companies make their own acid, the demand for pyrites is considerable, and growing. Thus in 1908, 74,230 tons were imported; in 1909, 90,193, and in 1910, 120,912. The imports for last May were 20,785 tons, 33 per cent. greater than those of the previous May. However, only about one-fifth of the pyrites imported into Charleston is consumed by the local fertilizer manufacturers. Of the 120,912 tons entering during 1910, 22,615 tons were locally reduced. The remainder, 98,297 tons, was shipped to the interior. The significant fact indicated is that the fertilizer industry, which brings pyrites here, is building up a general import trade for the city. Still another fact is noteworthy in this connection. At first the iron remaining after extraction of the acid was unsalable. It had to be dumped into marshes to get it out of the way. Now there is a growing demand for it in the form of pig-iron for foundry purposes. A still more important import trade has been built up by the industry. Charleston is now getting fertilizer material, nitrates, etc., from abroad for other parts of the country as well as for herself. Of these, 384,129 tons were imported in 1910. Like the pyrites trade, this is growing from year to year. For example, the imports for May of this year were 12,583 tons, against 1702 tons for May of last year.

Both mining and manufacturing companies multiplied after the establishment of the pioneers, the former at first more rapidly than the latter, the discovery of the river rock about the end of 1860 giving them special impetus. Some of the river mining companies, notably the Coosaw,

proved extremely remunerative, but all except one had a melancholy end. They worked under 20-year grants from the State, paying one dollar per ton royalty, and supplied practically all of the rock exported to foreign countries. Refusal of the State to renew the grants on their expiration in 1891, or to reduce the royalty, resulting litigation and coincident development of the Florida phosphate deposits killed the river mining industry.

The river rock mined and shipped abroad between 1870 and 1903 was 4,628,158 tons. The land rock mined from 1867 to 1903 was 7,143,216 tons. Of that quantity, 4,993,903 tons were shipped to domestic ports, while 2,918,481 tons were consumed in Charleston. The total production of rock to date has been about 13,771,374 tons, while the total production of fertilizers has been 9,228,460 tons. At present there are only three mining companies in operation—the Charleston Mining & Manufacturing Co., on Ashley River and Chisolm's Island; the Bolton Mines Co., on Stono River, and the Central Phosphate Mining Co. of Beaufort. The last is the solitary survivor of the river mining companies. The annual production of rock is now from 250,000 to 300,000 tons.

Improvements have been made in mining as well as manufacturing. At first the mining was done by hand. Trenches were dug with pick and shovel to lay bare the stratum which, as a rule, was from three to six feet below the surface. That method, although slow and inefficient, and consequently expensive, was adhered to for many years. Now, however, the steam shovel has been brought into requisition, with beneficial results. Old ground supposed to have been exhausted by hand digging has been mined over with the steam shovel, which recovered as much rock as was produced at the first mining. With the steam shovel's aid the mining has also been carried deeper, in some instances as far as 19 feet below the surface, with good results. River mining was begun with tongs, but those were speedily discarded for the steam dredge.

The fertilizer manufacturing plants at the present time number 20. Nine of these are operated independently, while the others are embraced in the combination of the Virginia-Carolina Chemical Co., whose headquarters are in Richmond, Va. Among the plants operated by this company are the Wando—moved early in its career from the city to a site on the east bank of Ashley River, where it became the nucleus of the settlement referred to at the outset—the Atlantic, Stono, Sardy, Chicora, Imperial, Standard, Ashley. The Charleston Mining & Manufacturing Co. is also now owned by the Virginia-Carolina.

The independent companies are the Etewan, Planters, Read, Combahee, Ashepoo, Interstate Chemical, Macmurry, Germofert, Wulbern. The two last named are new companies. All except the Combahee, Macmurry and Wulbern make their own sulphuric acid. With the exception of the Ashepoo, which is associated with the Bolton Mines Co., they buy their rock in the open market, paying from \$4.50 to \$5 per ton. The Planters is the largest individual producer, and the capacity of the others is from 25,000 to 55,000 tons per annum. The plants of the Virginia-Carolina company produce somewhat more than half of all the fertilizers made in Charleston. The standard price of acid phosphate is \$9 per ton. Some grades of fertilizers sell for \$45 per ton, but the average price is about \$18. At those figures the output of 1910 brought into the city about \$11,000,000.

The following review indicates the growth of the manufacturing industry,

which, though generally advancing, had its periods of retrogression. The output of 1868 was 14,862 tons, and sextuple figures were reached in 1881, with 102,525 tons. Progressive increase followed during the succeeding 12 years, and the production for 1893 was 325,618 tons. That was the year of the great cyclone, which spread devastation along the coast of South Carolina and almost paralyzed business. Its full effect on the fertilizer industry was not shown, however, until two years later. Production declined only 9000 tons in 1894, but dropped in 1895 to 159,526 tons. Recovery of more than 100,000 tons was shown in 1897, and high-water mark for the century was reached in 1898, with 437,138 tons. Fluctuations of from 100,000 to 125,000 tons followed during the next 10 years. Thus the output was 429,378 tons for 1901, but only 319,505 for 1905. Then followed a progressive upward movement. The figures for the last three years are: 1908, 412,350; 1909, 435,258; 1910, 606,709. The increase of 1910 was almost twice as great as that of any other year in the history of the industry.

WILLIAM E. SIMMONS.

American Goods Wanted in Chile.

There is an increasing demand in Chile for railway supplies, according to a letter received by the MANUFACTURERS RECORD from Mr. James H. Spencer of Spencer & Waters, Santiago, Chile, who is now in this country. Mr. Spencer, writing from the office of Wm. H. Knox & Co., 115 Produce Exchange, New York, says:

"The street railways of Chile are purchasing on an average in the neighborhood of 2,000,000 to 3,000,000 pounds sterling in supplies of all kinds, which up to the present has largely been placed with European manufacturers, owing to the liberality of their terms and prices, and to the fact that they consign samples to their representatives in order to demonstrate practically the advantages and merits of their products."

Mr. Spencer then requests us to advise manufacturers that he will be glad to receive full details and printed matter. His firm will be pleased to report at an early date direct to them on the prospects of business. He is returning to Chile in a week or ten days, and, owing to the pressure of business, will not have the opportunity of meeting manufacturers personally.

Under date of June 27 we have from Mr. Luis Munoz, Room 907, 17 State street, New York, representing Morrison & Co., engineers and importers and contractors of Chile, a letter in which he says:

"The line of goods we stock in Chile is so vast that we are really interested in all kinds of machinery, and would be much obliged if you would bring us into correspondence with reliable manufacturers."

Morrison & Co. have offices in England, Germany and a number of Chilean ports, and refer to leading bankers in London, New York, Berlin and elsewhere. Mr. Munoz is anxious to get all information possible while in this country that may be valuable to him in handling American goods in Chile. He and Ramon Vidal, representing Morrison & Co., are on a special mission to the United States with the purpose of extending their trading direct with manufacturers, and are making such purchases as may be deemed advantageous to their Chilean house.

A July Cotton Estimate.

Based upon an estimated yield averaging 202.8 pounds to the acre and an estimated acreage of 34,000,000, the Government cotton experts look for an indicated yield this year of 14,425,000 bales of American cotton.

WHAT IS YOUR TOWN DOING?

The MANUFACTURERS RECORD will be glad to receive from responsible correspondents in every town in the South brief items of news about business conditions and the opportunities for industrial enterprises. This information is desired for publication without cost of any kind to the sender, and regardless of whether the writer of the letter is a subscriber or not. The MANUFACTURERS RECORD accepts no paid matter in its reading pages. It seeks information of this kind from commercial and industrial organizations and from municipal authorities in every town and city of the South.

This department is open only to news facts of interest to investors, homeseekers and manufacturers. Communications of 200 or 300 words are likely to be given prompter publicity than more extended ones.

JOHNSON CITY FACTS.

Commercial Club,
Johnson City, Tenn., July 1.

Editor Manufacturers Record:

Johnson City is in the valley of East Tennessee, has an altitude of 1634 feet above sea level, population of 8500, not including National Soldiers' Home. The city has recently taken over the gravity water supply, which, when completed, will furnish water for our city when its population reaches 75,000. We have fine sewerage and lighting system, paved streets and four miles of street railway. This year the Johnson City Traction Co. will build an additional mile of railway to the East Tennessee Normal School; the city will pave three miles of street. The city has excellent schools for both white and colored, all of our seven school buildings being modern in every respect. The city has a library of several thousand volumes. The health of the city can best be attested by the death rate. At present it is less than five to the thousand. On account of the climate and water, the Government built its last and best home here for disabled soldiers, costing approximately \$4,000,000.

Johnson City is on the main line of two important trunk lines of railway—the Carolina, Clinchfield & Ohio and the Southern, radiating to the four points of the compass, assuring manufacturers of the very best facilities for the distribution of the output of their plants. Our close proximity to the famous coal fields, our exceptional low rate of freight, together with an abundant, almost unlimited, supply of all kinds of timber. We offer to the furniture manufacturer as well as all kinds of woodworking plants unexcelled opportunities for the location of their future plants. We can furnish intelligent labor for textile mills at a low cost. On account of the altitude and surrounding conditions, it will be to the interest of this class of manufacturers to investigate our city with the view to locating their plant in our midst. If desired, excellent water-power sites are within easy range which may be developed at a reasonable cost. Our city has three safely-conducted banks, which show more than \$2,000,000 annual deposits.

Our city has several woodworking plants, but desires additional plants in order to use the surplus raw material. Excellent opportunity awaits the location of a large chair factory. Unlimited supply of raw material, which can be had at a nominal cost.

The Commercial Club will be glad to hear from prospective manufacturers, and will gladly aid any worthy enterprise desiring a location in our midst. Write the secretary for more detailed information.

JULIAN H. CAMPBELL, Secretary.

LANDMARK RETAINED.

Merchants' Association,
Jackson, Tenn., June 28.

Editor Manufacturers Record:

Our association has been an extremely busy-body for the past fortnight. We were apprised of the fact that unless \$30,000 was raised in a very limited time Jackson would lose one of its oldest and most indispensable institutions, viz., the Methodist Conference Female Institute, that

has been in successful operation for 70 years.

It became necessary that our citizens raise \$30,000 for the purpose of purchasing individual holdings in the institution, and deed same, fee-simple, to the Methodist Conference, it, in turn, agreeing to expend \$30,000 on improvements, etc., in a reasonable time. Stimulated by the offer of Conference, we took the situation by the horns, so to speak, raised the \$30,000, and, of course, will retain the school. We are now in position to double the capacity of our girls' college. W. P. MOORE, Secretary.

SUMTER'S WANTS.

Chamber of Commerce,
Sumter, S. C., July 3.

Editor Manufacturers Record:

Sumter is a city of about 10,000 people, has eight lines of railroads covering a fine territory, and is in the heart of South Carolina. The county is one of the best agricultural counties in the State. The streets of the city are well paved and well lighted. A contract has recently been let for the paving of the main street with vitrified brick, replacing macadam. A hotel company has recently been organized to build a \$100,000 hotel. A campaign is under way for a county issue of bonds for \$200,000, which will give us a complete system of sand-clay roads. Election will be August 1. A \$40,000 Y. M. C. A. building is being erected. The Seaboard Air Line has made the city an offer to extend its line through Sumter, connecting with the main line to the north. Plans for closing with this offer are under way.

We want to secure a canning and furniture factory. Can offer inducements and have all the necessary raw materials to supply these factories. Have just secured a carriage factory with a capitalization of \$25,000.

A. V. SNELL, Secretary.

BRISTOL INTERESTS.

Board of Trade,
Bristol, Va.-Tenn., July 3.

Editor Manufacturers Record:

The Memphis-to-Bristol Highway Commissioners were given royal entertainment here last week. The scouts were met several miles out on the Beaver Creek pike, and during their stay here they were the guests of the Board of Trade. At a public reception at the Board of Trade resolutions were adopted cordially inviting the commission to sit in Bristol while hearing the delegates from the various counties competing for the great highway, and telegrams were sent to the Sullivan county representatives in the General Assembly urging that they give their active support to any good-roads bill that would stimulate the early construction of this pike, which is meant to ultimately connect New York and New Orleans. Following the meeting in the boardrooms the visitors were taken in cars over the city, and departed via the Blountville pike, where for nearly 20 miles they went over one of the finest rock roads in the United States. The visitors were enthusiastic in their praise of the roads they had found in Sullivan county.

The city of Bristol, Va., is anticipating its obligations. Three weeks ago the Council took up a note for \$6000, about

five years in advance of the date of its maturity. This week the Council anticipated a bond issue of \$15,000, which was not due until 1928. This has been done after setting aside \$80,000 for public-school improvements on the Virginia side of town, providing for additional improved streets and sidewalks, and rising to the occasion by voting \$500 to the advertising fund of the Board of Trade for this year.

The Southern Railway good-roads train, with its staff of road-building experts, arrived this morning, and a number of farmers and others heard the lectures, morning and afternoon, and saw the stereopticon views that were shown.

F. M. RUNNELS, Secretary.

EXPERIMENTING IN SILK.

Chamber of Commerce,

Augusta, Ga., July 1.

Editor Manufacturers Record:

Headed by the Messrs. Berckmans of the Fruitland Nursery, a number of business men have been interested by the Chamber of Commerce in a silk-raising experiment. The Chamber has been instrumental in having an exhibit of feeding works opened at Lake View Park during the summer under the care of Dr. V. K. Osigian, a Syrian sericulturist. The company that was formed at the meeting in the Chamber of Commerce June 30 has put aside \$1000 for the purpose of experimentation, and if sufficient encouragement is made a \$20,000 company will carry on the work on a larger scale. Among those associated with Messrs. Berckmans are Jacob Phinzy, president of Georgia Railroad & Banking Co.; T. I. Hickman, president of Graniteville Manufacturing Co.; T. S. Raworth, president of Sibley Manufacturing Co.; Thomas W. Loyless, president of the Augusta Chronicle Publishing Co.; D. Slusky, Percy Burum, H. H. Alexander, Henry Pund, T. G. Philpot and Dr. W. H. Doughty. J. J. FARRELL, Secretary.

SECRETARY WANTED.

Young Men's Business League,

Milledgeville, Ga., June 30.

Editor Manufacturers Record:

Georgia's new trade organization, the Young Men's Business League of this city, is in search of a secretary. Mr. C. H. Whitfield is president of the new body and Mr. A. J. Carr, Jr., is vice-president.

J. O. BLOODWORTH.

Detailed information about towns seeking manufacturing enterprises and offering specific advantages for development and business opportunities can be found under the head of "Classified Opportunities" on pages 94, 95, 96, and under "Cities, Towns and Railroads Inviting Factories" on pages 134, 135, 136, 137, 138, 139.

Glass Plants Costing \$925,000.

Referring to reports that two glass works will be established at Ragland, Ala., M. B. Bandas of that city wires the MANUFACTURERS RECORD as follows: "Plans are about completed for the erection here of two glass plants, capital for which is to be supplied largely by Eastern capitalists who are favorably impressed with the grade of sand to be obtained here. The cost will be \$800,000 for a plate-glass factory and \$125,000 for a bottle factory. Experts are coming here from the East to decide on the location of these plants and the character of their construction. Ragland will give free sites for these plants."

Oil for Texas Roads.

[Special Cor. Manufacturers Record.]

San Antonio, Tex., June 30.

Bexar county is preparing to improve highways by the application of oil, the County Commissioners taking the position that oil is a road saver. One carload of oil has been ordered and others will follow

as rapidly as they can be delivered. County Judge Shook says that all county roads will be oiled as rapidly as funds become available for the work. This effort is in harmony with the good-roads movement that has grown so rapidly in Texas within the past two years. A number of the roads which will be oiled will ultimately form a part of the State-wide auto way that is being pushed so vigorously through the central part and coast country of Texas, and when finished will be one of the longest auto roads in the country.

COST WILL BE ABOUT \$500,000

For Memphis Company's Added Storing and Compressing Facilities.

Referring to its plans for the additional facilities mentioned last week, the Memphis Warehouse Co. of Memphis, Tenn., writes to the MANUFACTURERS RECORD enclosing a statement outlining the proposed enlargements. This statement is about as follows:

"Already the largest in the world, the capacity of the plant of the Memphis Warehouse Co. is to be doubled at an expense of over \$500,000. When this improvement is made the company will be able to handle upon a modern and scientific basis every bale of cotton that comes into Memphis. Plans drawn by W. G. Turner, general manager, have been approved by every insurance underwriter's association, and it is expected soon will be authorized by the directors of the company. The extension of the plant will be along the same lines as the present warehouses, sheds, compresses, etc. All the structures will be of reinforced concrete. It is thought that work will be started immediately and that the extension will be practically completed by the beginning of the next cotton season.

"The determination of the directors to make such extensive improvements followed the announcement several months ago that old local warehouse and compressing concerns were to be liquidated. The business was already growing rapidly and the directors saw that a concentration of the cotton storage and compressing business would necessarily result. Already over three-fourths of the additional storage room to be provided by the extension had been spoken for by local cotton factors. It is expected that practically all the additional room will be contracted for before the first yard of concrete on the extension is put into place.

"Two and a quarter miles of railroad tracks will be built, making a total of nine miles of trackage on the company's ground. Additional facilities in the press-room will be provided, and the factors will also have additional room for the concentration of cotton. The automatic sprinkling system, which now embraces only the warehouses, will be extended to the press-rooms and other parts of the plant, making the largest sprinkling insurance risk in the world.

"The extension will do much toward strengthening Memphis' claim as the largest inland cotton center in the world."

Steel Rail Orders.

[Special Dispatch to Manufacturers Record.]

New York, July 5.

The Illinois Steel Co. has orders aggregating 8500 tons of steel rails. The Carnegie Company has important orders for export business. The Tennessee Company sold 250 tons. The Jacksonville Terminal Co. has placed orders with the Pennsylvania Steel Co. for 800 to 1000 tons.

The South Carolina Cottonseed Crushers' Association elected last week Messrs. J. N. Lipscomb of Gaffney, president; C. R. Spratt of Manning, vice-president, and B. F. Taylor of Columbia, secretary.

GOOD ROADS

WEEK'S HIGHWAY RECORD.

Progress in Southern Road and Street Improvement.

[Full details of highway undertakings are given in the Construction Department.]

Bonds Voted.

Gonzales, Tex.—Gonzales County Commissioners, Precinct No. 1, voted \$150,000 bond issue for road construction.

Groveton, Tex.—Trinity county voted \$40,000 bond issue for road construction.

Rosenburg, Tex.—Rosenburg district of Fort Bend county voted \$75,000 bond issue for road construction.

Bonds to Be Voted.

Marianna, Fla.—Jackson county will vote on \$300,000 bond issue for road construction.

Port Arthur, Tex.—City will vote on \$80,000 bond issue for street paving.

Contracts Awarded.

Catonsville, Md.—Baltimore county awarded contract for grading 2200 feet of road.

Columbus, Ga.—City awarded \$40,000 contract for vitrified-brick paving.

Fort Sill, Okla.—Government awarded \$12,000 contract for constructing roads.

Louisville, Ky.—City awarded asphalt paving contracts amounting to \$32,000.

Montgomery, Ala.—City awarded contracts for sidewalks.

Sylvania, Ga.—Screven county awarded contract for road construction.

Contracts to Be Awarded.

Americus, Ga.—City receives bids until July 10 for 50,000 square yards of paving.

Buena Vista, Va.—City is considering bids for constructing one mile of macadam road.

Fort Smith, Ark.—City will pave Garrison Ave., and is considering asphalt.

Fort Worth, Tex.—City receives bids until July 8 for bitulithic, vitrified brick, asphalt of macadam paving.

Greenville, Ala.—City will improve streets.

Jacksonville, Fla.—Duval county receives bids until July 21 for vitrified-brick paving, grading, curbing, etc.

Jonesville, Va.—Lee county receives bids until August 9 for constructing about 180 miles of county highways.

Key West, Fla.—City will grade, curb and pave certain streets with either wood blocks, vitrified brick, bitulithic, asphalt blocks or asphalt and macadam; 67,857 square yards of paving and 18,395 linear feet of curb.

Lockhart, Tex.—Caldwell county will construct 26 miles of macadam roads.

Plaquemine, La.—Iberville parish will construct two-mile gravel road.

Shreveport, La.—City receives bids until July 20 for wood block, brick, asphalt, asphaltic concrete, bitulithic and concrete paving estimated to cost \$600,000.

Tampa, Fla.—City will pave additional streets.

Winnsboro, La.—Franklin parish appropriated \$5000 for constructing model roads.

MISSOURI'S STATE HIGHWAY.

Plans of a Committee for Selecting the Route.

[Special Cor. Manufacturers Record.]

Jefferson City, Mo., July 1.

The committee of the State Board of Agriculture, composed of Col. H. N. Gentry of Sedalia, Fred D. Munson of Osceola, Judge E. E. Swink of Farmington, Col. W. A. Dallmeyer of Jefferson City, Geo. H. Sly of Rockport, Charles Householder of Thompson and Allen H. Thompson of

Nashua, appointed for the purpose of bringing about the official designation of a State highway across the State from east to west, makes the following announcement, for the benefit of those interested in the different proposed routes, of the plan of procedure and of the different factors and considerations which, in the opinion of the committee, should be given special weight in the selection of the proposed State highway.

The committee, accompanied by the State highway engineer, will, beginning on July 17, make a personal inspection of the different proposed routes. On July 28 a meeting will be held by the State Board of Agriculture at Jefferson City, at which the advocates of the different routes will be given an opportunity to appear in person and present facts and arguments in favor of the different routes. The official designation of the cross State highway will then be announced, with the idea that during the last week in September the route selected will be so improved as to be available for travel, and at which time the official opening of the State highway will be had with appropriate ceremonies.

The committee suggests that the advocates of the different routes be prepared to submit at the meeting held the 28th of July at Jefferson City a showing upon the following points:

First—Assurances from local officials, municipalities and citizens that the road will be made available for travel at the time designated, viz., the last week in September, and a permanently improved highway will, in a reasonable time, be constructed along the route selected.

Second—The amount of roads now improved and of roads not now improved and the condition of the same, including statement as to the condition of bridges across streams or rivers, or means for crossing the same, and culverts along the proposed routes. Also maximum grades and mileage of proposed routes and availability of material for road building.

Third—Points of interest along proposed routes, including State institutions, educational institutions, places and buildings of historic interest, historic associations and the general character of the country through which the road is located.

Fourth—General availability of the proposed route, including connection with public highways in other States and the proposed transcontinental highway.

Written or oral arguments may be submitted by different organizations or citizens interested in favor of any one of the proposed routes at the meeting to be held July 28 at Jefferson City.

In making the final decision for the selection of a State highway, the above-named factors, among others, will be taken into special consideration.

The right will be reserved by the State Board of Agriculture to select any one of the proposed routes, or to select a State highway to consist of parts of the different proposed routes in combination, or to vary from all of the proposed routes when it might seem advisable so to do. The right will also be reserved to meet and change the selection of the State highway if assurances as to the improvement and construction of the same are not kept in a satisfactory manner.

Big Land Sale.

Hon. William Kent, member of Congress from California, and J. F. Jordan of North Carolina are reported to have purchased 40,000 acres of land near Manchester, between Fayetteville and Sanford, in Cumberland and Harnett counties, North Carolina, with a view to development.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

GALVESTON-HOUSTON.

Nearly all Track Laid on Electric Interurban to Be Ready in the Fall.

Progress upon the construction of the interurban electric railway from Galveston to Houston, Tex., about 55 miles, is reported satisfactory in advices from those cities. It is expected that the road will be operated by November 1. All the track has been laid from Houston to the beginning of the new causeway now building across Galveston Bay, and tracklaying has been started in Galveston. The 1800-foot concrete viaduct over which the cars will enter Houston is practically finished. The main power station at Clear Creek is about ready, as is the substation at La Marque. Construction on the substation at South Houston is well advanced. Much of the machinery has been put in place in the completed buildings. The track is yet to be ballasted.

Work has started upon the site for the car barn in Houston, and it is said that by July 1 construction of the building will probably begin. It will be 100x160 feet, and will contain offices, trainmen's room and a storage-room, in addition to space for cars. A similar building will be erected in Galveston. These structures will be of brick, reinforced concrete and steel. The Galveston passenger station will be 60x161 feet, and will be of brick. The tracks there are being laid, but construction of the building has not begun.

Drainage was an important problem in the building of the road, but the engineers are said to have made a well-drained track by constructing the subgrade more than ordinarily wide, with ditches which keep the water well away from the track and lead it to the bayous.

The stations on the new railway will be Galveston, Virginia Point, Texas City Junction, La Marque, Oleander, Dickinson, League City, Webster Power Plant, Friendswood, Genoa, South Houston, Park Place, Sunset Crossing, Telephone Road and Houston.

The Stone & Webster Engineering Corporation is building the line.

POYDRAS TERMINALS OPEN.

New Orleans Has Fine Freight Facilities for the Illinois Central Road.

The Illinois Central Railroad has completed at its new freight terminals at New Orleans five large buildings, including four inbound freight sheds, each 550 feet long and 80 feet wide, all being one story high, and outbound shed 500 feet long and 70 feet wide on the first story and 368 feet long and 68 feet wide on the second story, which latter will be used by the freight office forces. The buildings are bounded by Saratoga, Poydras, Claiborne and Perillat streets, and are known as the Poydras Terminals. Other buildings are to be added as traffic needs have to be met. When all are erected there will be 17. Liberal trackage facilities adjoin the structures. All those now up are of brick and reinforced concrete and thoroughly fire-proof. The opening of the last of them for use was marked by a reception attended by the business men of New Orleans and other invited guests.

Already \$1,250,000 has been spent on the terminals, and this includes \$250,000 for the pavement of all streets in their vicinity with Dakota granite blocks, and also for the installation of subsurface drainage. The other sheds to be built will also be of concrete construction, and will

require an additional expenditure of about \$900,000.

A. S. Baldwin, chief engineer of the Illinois Central Railroad, Chicago, furnished the plans. The work was done by the Jefferson Construction Co. of New Orleans.

EXTENSION TO KEY WEST.

A Bridge of Steel and Concrete Seven or Eight Miles Long a Feature.

According to a press report from St. Augustine, the Florida East Coast Railway is pushing construction on its extension from Knight's Key to Key West to complete the through line early next year. There are now 2600 men employed, with general headquarters at Marathon, where the office of W. J. Krome, construction engineer, is situated. At Pigeon Key, just south of Marathon, a large force is engaged upon the concrete piers of the bridges across Knight's Key channel and Moser channel, where a large drawbridge has been built. Four miles beyond is the force on the viaduct from Paet Key to Little Duck Key, which will be between seven and eight miles long. Part of this great bridge will consist of concrete piers, with steel floor plate girders, and part will be solid arches of concrete. Grading is in progress on Little Duck, Missouri, Ohio and Bahia Honda keys, and the trestles connecting them are being built. South of the latter a steel and concrete bridge is being erected over Bahia Honda channel to meet the grade on the West Summerland keys. The trestle across Spanish harbor and the grade and track across West Summerland Key No. 3 and Big Pine have been completed. There are six miles of steel work, eight miles of concrete and five miles of temporary trestle between Knight's Key and Key West, 46 miles. The five miles of trestle will finally be made permanent in concrete.

MEMPHIS TO EL PASO.

A Southwestern Road in Texas and New Mexico to Open Up Ranch Lands.

A report from Houston quotes J. M. Elliott of Memphis, Tex., as giving some important facts concerning the Altus, Lubbock, Roswell & El Paso Railway, promoted by Ed. Kennedy of Houston. The first part of the line built, from Altus, Okla., to Wellington, Tex., 56 miles, was acquired some time ago by the Wichita Falls & Northwestern Railway, in which the Missouri, Kansas & Texas Railway Co. is interested, but it is proposed to build from Wellington to Memphis, about 20 miles, and thence via Silverton, Lockney and Lubbock, Tex., and Roswell, N. M., to El Paso, Tex., about 400 miles.

Mr. Elliott is further reported as saying that about 130 miles of grade have been completed out of Memphis, all between there and Lubbock being done excepting a small stretch on the cap rock of the plains. Right of way has been obtained for the entire route, the general direction of which is southwest. It lies through a fertile country between the Santa Fe Railway and the Texas & Pacific Railway, and will provide needed transportation facilities to a large territory. The Railway Construction Co. of Texas is doing the work.

A WEST TEXAS PLAN.

Proposed Road from the Santa Fe to Midland, on the Texas & Pacific.

John D. Bedford, vice-president of the Texas, Gulf & Northern Railway Co., Nunn Building, 113 W. 5th street, Amarillo, Tex., writes that the charter for the road was granted June 20, and the proposed route is from a point on the Pecos & Northern Texas Railroad (Santa Fe

system) in Parmer county southward through Bailey, Cochran, Yoakum, Gaines, Andrews and Ector counties to a point on the Texas & Pacific Railway at or near Midland, Tex., approximately 175 miles. Bonuses and other contracts are now being closed, and the survey will soon begin with R. E. Davis as chief engineer. It is said that the first 30 miles will be rushed to completion. The route is through considerable undeveloped country, but when railroad facilities are provided it is expected that a large tonnage will be produced and shipped by farmers along it.

The incorporators are J. A. Underwood of Honey Grove, Tex.; J. F. Sadler of Weatherford, Tex.; J. D. Bedford, W. D. Patton, J. M. Neeley, H. B. Sanborn, M. C. McMaster, R. E. Underwood, E. B. Sanders and R. E. Davis, all of Amarillo.

New Equipment, Rails, Etc.

The Bartlett Western Railway, Bartlett, Tex., is in the market for 950 tons of 45 or 50-pound relaying rails with angle bars, one second-hand combination coach and one straight coach. C. J. Grainger is vice-president and general manager.

The Jacksonville Terminal Co. has purchased 1000 tons of standard section A. S. C. E. rails.

The Kentucky Lumber Co., Cincinnati, O., may be in the market for some 58-pound rails for seven miles of line, besides log loaders and shaft-driven locomotives.

The Frisco system, says a dispatch from St. Louis quoting President B. L. Winchell, is placing orders for 51 steel passenger cars and 28 large Pacific type passenger locomotives.

The Texas & Pacific Railway is reported in the market for 16,000 tons of rails.

The Santa Fe system, says a market report, has ordered 81 locomotives from the Baldwin Works, Philadelphia.

The Louisville (Ky.) Railway is reported to have ordered 30 pay-as-you-enter cars from the Cincinnati (O.) Car Co.

The Illinois Central Railroad is reported taking bids to furnish the road with 2000 freight cars.

The Columbia South Carolina Street Railway Co. is reported to have bought six more pay-as-you-enter cars.

The St. Louis National Stockyards Co., says a report, has ordered a six-wheel switching locomotive from the American Locomotive Co., New York.

The Kansas City & Memphis Railway is reported to have ordered a 10-wheel locomotive from the American Locomotive Co.

The Central of Georgia Railway, says a dispatch from Savannah, has ordered 14 steel passenger cars from the Pullman Company, Chicago, to be delivered in the fall.

The Piedmont & Northern lines in North and South Carolina are reported to have ordered eight express cars from the Southern Car Co., High Point, N. C.

The Missouri Pacific Railway, says a report from St. Louis, has ordered 50 Mikado type locomotives from the American Locomotive Co. They will be built at Dunkirk and Schenectady, N. Y.

The Springfield (Mo.) Traction Co., says a market report, has ordered six cars from the Danville (Ill.) Car Co.

The Grafton, Clarksburg & Fairmont Traction Co., it is reported, will purchase a gasoline motor car.

The Denton (Tex.) Traction Co., it is reported, has ordered two closed cars of 18 feet each from the Danville Car Co., Danville, Ill.

Terminal Improvement at St. Louis.

The Manufacturers Railway Co. of St. Louis has bought a site and prepared plans to build a freight station and warehouse at the northeast corner of Broadway and

Miller street. Work upon the structure will begin soon. It will have a frontage of 60 feet on Broadway, with a depth of 300 feet on Miller street. Offices will be above the first floor on the front of the building. The walls will be of brick, and substantial construction throughout will characterize it. Tracks will enter parallel with the north wall, and they will connect with the main line of the railway on 2d street. Elevators and chutes will be installed for handling freight between the different floors, eight in number. The station is designed to accommodate five railroads, the Manufacturers Railway being a terminal system. George F. Moore is president.

In connection with this improvement it is important to note that parties interested in the Manufacturers Railway have for some time contemplated the construction of a railroad from St. Louis southwest via Fort Smith, Ark., and other points into Texas. No official announcement has, however, been made of the plans, but if the line is built it will find the terminal road ready to afford entrance to St. Louis. The improvement about to be made will, it is said materially enlarge trackage facilities in the southern part of the city.

New Station at Grafton.

The Baltimore & Ohio Railroad is planning to open its new passenger station at Grafton, W. Va., on or about July 15, this new terminal being a part of the improvements President Willard has provided for West Virginia and one of the finest passenger stations on the system. The cost was about \$125,000. Grafton is one of the busiest cities in the State.

The building is three stories high, built of concrete, with terra-cotta and pressed-brick facing. The roof is covered with copper and composition. The interior is trimmed throughout in quartered oak. The offices of the division officials are located in the building. The floors in the public room are of marble and tile. The general waiting-room and adjoining apartments are finished with marble wainscoting and beam ceilings of plaster. The architecture is modern Renaissance. The first floor of the station is on the track level, the waiting-room being on the main street level, the difference in elevation being about 18 feet.

There are separate eastbound and westbound platforms, 600 feet in length and covered with an umbrella shed. The station plans were prepared by M. A. Long, architect for the Baltimore & Ohio Railroad, and the work was done under his supervision.

Sooner Valley & Southeast.

An official of the Sooner Valley & Southeast Railroad Co. of West Point, Miss., writes that its organization has been completed by the election of 12 directors, with J. L. Smith chairman and J. P. Unger secretary and treasurer. L. T. Carlisle was elected president, Mr. Smith being vice-president. The aldermen of West Point adopted an amendment to the city charter, which will be submitted to the Governor of the State for approval, to enable the aldermen to issue \$40,000 of bonds for right of way through the city and terminal for the road. The directors are to immediately take steps to secure subscriptions to stock and thus finance the construction from West Point to Caradine, Miss., about 18 miles northwest. This is all the construction to be undertaken at present, although the entire plan is to build the line from Sooner River, in Calhoun county, southeast via Houston and West Point to a terminal on the Tombigbee River. The route is said to be through a section which will yield an excellent traffic. It is estimated that the line

to Caradine can be built and equipped with rebuilt rolling stock and light rails for \$9000 or \$10,000 per mile, the grade being easy.

Railway and Light Deal Approved.

It is announced that a large majority of shares in the American Cities Railways & Light Co. have approved the sale of its assets to the American Cities Company, which is the name of the holding corporation recently chartered in New Jersey to take over the property of the first-named concern, which controls the New Orleans Railway & Light Co., the Birmingham Railway, Light & Power Co., the Memphis Street Railway Co., the Knoxville Railway & Light Co., the Little Rock Railway & Electric Co. and the Houston Lighting & Power Co. The firm of Bertron, Griscom & Jenks, 40 Wall street, New York, is quoted as saying that about 15 days will elapse before the matter is fully concluded.

The holding company will have \$16,000,000 of common stock, \$21,000,000 of 6 per cent. preferred stock and \$10,000,000 of collateral trust bonds. The capitalization of the American Cities Railway & Light Co. was \$15,000,000 of common and \$12,500,000 of preferred stock, the amounts issued being \$10,761,165 common and \$6,906,177 preferred. Isidore Newman & Son of New Orleans are prominently interested.

Ardmore to Lawton.

The Ardmore, Duncan & Lawton Railroad Co. has been chartered in Oklahoma, with headquarters at Ardmore, to build a line from there to Duncan and Lawton, Okla., about 100 miles, the estimated cost being \$3,500,000. Either steam, electricity or any other suitable motive power can be employed; capital \$3,500,000. The directors are A. Leighton Howe, Edward Clinton Lee, J. Bonsal Taylor and Eli R. Sutton of Philadelphia, Pa.; Jake L. Hamon, Fred R. Ellis, R. L. Robertson, Guy C. Robertson and M. S. S. Simpson, all of Lawton, Okla. Mr. Howe is president of the Development Corporation, which has offices in the Drexel Building, Philadelphia, Pa.

Bartlett Western.

C. J. Grainger, vice-president and general manager of the Bartlett Western Railway Co., Bartlett, Tex., says that the line will be 25 miles long from Bartlett to Florence, and will include one wooden bridge of 60 feet. The route is through rolling country. Connection is made with the Missouri, Kansas & Texas Railway at Bartlett. The company has 12 miles of line to build immediately from Jarrell to Florence, which will complete the road as described. Plans for a contemplated extension to Rockdale are not yet ready. Mr. Grainger is the contractor.

The company wishes to buy 950 tons of 45 or 50-pound relaying rails, with angle bars, one second-hand combination car and one all-passenger car. The incorporators are J. W. Jackson, president; C. J. Grainger, vice-president and general manager; C. C. Bailey, treasurer; W. W. Walton, secretary; J. L. Bailey, Stanton Allen, H. A. Breihan, Eugene Fowler, W. J. Cagle and Mrs. M. A. Goode, all of Bartlett.

Spending \$100,000 to Improve Road.

President A. F. Daley of the Wrightsville & Tennille Railroad Co., Wrightsville, Ga., confirms the recent report that it has appropriated \$100,000 for improvements of the roadway and equipment, besides betterments to station buildings. Out of this the company has already purchased one freight locomotive, besides doing considerable work on reducing grades;

it will also spend a considerable sum for the improvement of depot facilities at Dublin, Ga. The roadway improvement is now being made by the use of a steam shovel in the service of the railroad company, and the work will proceed as rapidly as the company can do it without interference with regular traffic. Probably \$75,000 to \$80,000 of the amount appropriated will be put in roadway betterments.

Improvements at Jacksonville.

J. C. Blanton, manager of the Jacksonville (Tex.) Terminal Co., says that plans for the improvements of the station are not sufficiently perfected to announce details, but that the plan for the rearrangement of the track facilities has been completed and contemplates the building of about three miles of additional main line and the rearrangement of approaches, so that the handling of passenger traffic will be greatly facilitated. All main lines and switches will be relaid with 80-pound standard rails, hard center and manganese frog and switch construction. For this purpose 1000 tons of A. S. C. E. rail have been bought.

New Electric Line Near Atlanta.

The Fairburn & Atlanta Railway & Electric Co. has completed its line from Fairburn to College Park, Ga., 10 miles, and has put it in operation. W. T. Roberts of Fairburn is president. Fairburn is about 18 miles southwest of Atlanta on the Atlanta & West Point Railway, but the new line connects at College Park with the line of the Georgia Railway & Electric Co. of Atlanta. Cars are to be operated hourly over the road, which will be equipped with four cars, each having a capacity of 40 or 50 passengers.

Railroad Notes.

The Norfolk & Western Railway, says a report from Petersburg, Va., has completed its belt line from Addison to Poe, about 10 miles, and is now using it in freight service.

The Lynchburg (Va.) Traction & Light Co. is reported to have bought from the People's Improvement Co. the street railway extension from 17th and Kemper streets to Fairview Heights.

The Atlanta, Birmingham & Atlantic Railroad, according to a dispatch, has been authorized to issue \$200,000 of 5 per cent. two-year receiver's certificates, H. M. Atkinson of Atlanta being receiver.

Concerning a land deal in Colquitt county, Ga., the Wiregrass Development Co., Moultrie, Ga., telegraphs that Jessie & Earnest of Chicago, who bought 3000 acres, propose devoting it to pecan culture, and will build an interurban railway.

A letter from San Antonio, Tex., says that the Missouri, Kansas & Texas Railway will rebalast its line from Denison to San Antonio, 374 miles, with stone, and will relay it with 85-pound rails. Extra gangs of workmen are already reconstructing the roadbed.

The Pennsylvania has completed its new shops at Orangeville, near Baltimore, and has moved its forces from the Mt. Vernon shops, near Union Station, to the new plant. The old site will be cleared of buildings and used as a make-up yard for freight trains.

The Illinois Central Railroad will open an office in San Antonio, Tex., according to a letter from there, with T. F. Bowes as traveling freight and passenger agent. The company, it is further said, is improving its lines in Louisiana to handle growing traffic from Texas points.

H. B. Voorhees has been appointed gen-

eral superintendent of transportation of the Baltimore & Ohio Railroad, and James S. Murray has been appointed assistant to President Daniel Willard. Mr. Voorhees has been assistant to the president for a little more than a year, and Mr. Murray has been doing special work in the president's office. Both are railroad men of long experience.

The Kentucky Lumber Co., 1010 First National Bank Building, Cincinnati, O., contemplated building a standard-gauge railroad about seven miles long to handle the timber from a tract of land purchased near La Follette, Tenn., but has changed its plans, and will, instead, build a steel logging road of 42 inches gauge, laid with 58-pound rails and "equipped with log loaders and screw engines."

Official announcement, says a dispatch from St. Louis, has been made by the Frisco system of the lease of the Louisiana Southern Railroad, which was reported about two months ago, and it is understood that plans to extend the line about 20 miles farther along the Mississippi River, making it 50 miles long from New Orleans, with a branch of about 30 miles, are under consideration.

A dispatch from Paducah, Ky., says that the Burlington system, represented by C. Fickes, bridge engineer, and C. Greer, master mechanic, will begin work immediately on the incline at Metropolis, Ill., and that the Nashville, Chattanooga & St. Louis Railway will build a spur track from Paducah to a point opposite Metropolis, so that in about four months the lines will be ready to interchange traffic pending the construction of the proposed bridge across the Ohio.

It was again rumored during the past week that the negotiations for the lease of the Clinchfield Railroad by the Chesapeake & Ohio and the Seaboard Air Line had been closed, but a press report quoting President G. W. Stevens of the Chesapeake & Ohio says that negotiations are still in progress, as many details have to be worked out, and he would not say that the matter was sure to be consummated. A report that the Seaboard had been acquired by the Chesapeake & Ohio was also denied from another source.

MINING

Alabama Mine Statistics.

In 1910, according to statistics compiled by Chief State Mine Inspector James Hillhouse and published by Grant & Pow, engineers, Birmingham, 22,025 men were employed in 314 coal openings in 13 counties of Alabama. The output of the year was 16,139,228 tons of 2000 pounds each, of which 11,019,221 tons were run of mines, 2,030,213 tons slack, 1,875,237 tons steam and nut and 1,214,557 tons lump. In the same year 8316 coke ovens turned out 3,231,399 tons of coke. The pamphlet publishing these figures contains also the figures of production in Alabama from 1870 to 1910, the production of the United States in the past five years and world production for nearly 50 years, together with a directory of Alabama coal mines, giving the postoffice addresses of the operators, superintendents and foremen.

A \$900,000 Company Chartered.

The Log Mountain Coal Co. of Big Stone Gap, Va., has been chartered with \$900,000 capital stock and the following officers: President, S. G. Seligman of Tamaqua, Pa.; vice-president, George Ball of Minersville, Pa.; treasurer, Frank J. Bender of Minersville, Pa.; secretary, J. W. Kelly of Big Stone Gap. Mr. Kelly wires the MANUFACTURERS RECORD that

the new company consolidates Kelly Coal Co., Clear Creek Coal Co., Caney Creek Coal & Coke Co. and Poplar Hignite Coal Co., with annual output of 250,000 to 500,000 tons of coal. It is proposed to install new washers and central power plant. About \$50,000 will be invested for improvements. (This company was mentioned last week as the Log Mountain Coal & Coke Co.)

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

To Manufacture Plow Handles.

The Lincoln Handle Co. of Lincolnton, N. C., will erect a 30x60-foot building and install machinery for a daily capacity of 3000 to 4000 handles, making a specialty of plow handles. All equipment has been purchased except a second-hand 30 to 40-horse-power boiler, on which the company wants prices. McCoy Moretz is president.

Louisiana Lumber.

Between 1904 and 1909, according to the Census Bureau, the capital invested in lumber and timber enterprises in Louisiana increased from \$39,573,185 to \$88,973,240, or 125 per cent.; the value of products from \$38,370,645 to \$62,837,912, or 64 per cent., and the number of wage-earners from 27,877 to 46,072, or 65 per cent.

Southern Textile Association.

[Special Cor. Manufacturers Record.]

Greenville, S. C., July 1.

The Southern Textile Association met here today and selected Atlanta as the next place of meeting. President H. J. Haynsworth of the Greenville Board of Trade; Mayor J. B. Marshall and Mr. Thomas F. Parker welcomed the visitors, and Mr. W. L. Lowry of Monroe, N. C., responded, with Mr. W. P. Hamrick presiding. Papers were read by Mr. J. E. Cheesman of New York on opening and cleaning cotton; by Mr. Eugene Swenson of Boston, Mass., on efficiency of operation and waste utilization; by Mr. Fred F. Taylor of Clemson College on the construction of the cotton card; by Mr. W. A. Price of Newberry on the spinning room; by Mr. Z. H. Mangum of Gibsonville, N. C., on the weaverroom, and by Mr. J. F. Carbery of Washington, D. C., on village improvement. This was followed up by an interesting discussion, one of the main speakers being Mr. Lewis W. Parker, who is one of the best-known advocates of the better mill-village conditions in the South. Reinforced by interesting stereopticon pictures, a paper was read by Mr. J. P. Judge of Baltimore, Md., on the electrical specialist in cotton mills. The banquet tendered by the Greenville Board of Trade was an enjoyable one. There were some 300 or 400 members of the association present, mainly from North and South Carolina. The officers elected are: Messrs. M. G. Stone, superintendent of the Pacolet Mills, Trough, S. C., president; J. M. Davis of Newberry, S. C.; T. B. Wallace of Laurens, S. C.; J. S. Osteen of Greenville, S. C., and E. E. Bowen of Rockingham, N. C., vice-presidents; G. S. Escott of Charlotte, N. C., secretary, and David Clark of Charlotte, treasurer.

The association is composed mainly of mill superintendents, master mechanics and overseers.

ROY G. BOOKER.

The Kansas City & Missouri River Transportation Co., it is reported, may build two steel side-wheel steamboats to run between St. Louis and Kansas City.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

SOUTHERN MILL PROGRESS.

Increasing Spindles During Second Quarter of 1911.

As reported from week to week in the MANUFACTURERS RECORD, there was increasing activity in plans for adding to Southern spindles during April, May and June as compared with the first quarter of 1911. Moreover, the additional spin-

dleage is mostly for extensions to established plants rather than for installations in new mills. The total for the second quarter was 86,940 spindles and 969 looms, the investment for which (buildings, machinery, etc.) will approximate \$2,200,000. The enlarging mills (13 in number) will have 56,940 of these spindles and 569 of the looms, an investment of about \$1,450,000. This leaves 30,000 spindles and 400 looms, an investment of about \$750,000, for the strictly new companies. There are four new companies, and one of them, the Dunson Mills of Lagrange, with 20,000 spindles and 400 looms, was organized by men already owning a large cotton factory in their city. Details of the various enterprises were reported by the MANUFACTURERS RECORD during the three months ended with June 30.

The new and enlarging mills of the second quarter are as follows:

Name.	Location.	Spindles.	Looms.
*American Net & Twine Co.	Anniston	10,000	...
*Buck Creek Cotton Mills	Slurra	10,000	...
		20,000	...
Georgia.			
*Mandeville Mills	Carrollton	10,000	20
*Hamburger Cotton Mills	Columbus	...	51
*Aldora Mills	Barnesville	...	300
Dunson Mills	La Grange	20,000	400
		30,000	771
North Carolina.			
Harnett Manufacturing Co.	Barclaysville
Harbrough Company	Bessemer City
*St. Pauls Cotton Mill Co.	St. Pauls	1,940	...
*Roberdel Manufacturing Co.	Rockingham	98	...
*Randolph Manufacturing Co.	Franklinville	100	...
*Hadley-Peoples Manufacturing Co.	Siler City	3,000	...
Energetic Cotton Mill Co.	Mt. Holly	5,000	...
*Statesville Cotton Mills	Statesville	1,000	...
		10,940	198
South Carolina.			
*Greens Manufacturing Co.	Greer	15,000	...
*Pickens Mills	Pickens	1,000	...
Katrim Manufacturing Co.	Greenville
Clayton Lnen Mills	Greenville	5,000	...
		21,000	...
Texas.			
*Guadalupe Valley Cotton Mills	Cuero	5,000	...
Virginia.			
River Falls Cotton Mills	Graham
Total for first quarter of year		59,500	1660
Total for second quarter of year		86,940	969
Total for first six months of 1911		146,440	2629
*Established mills enlarging.			

Southern Knitting Mills.

Four new knitting mill enterprises for the South were announced during April, May and June. Three of these are capitalized at a total of \$125,000, and the capi-

talization of the other was not reported. Two knitting plants destroyed by fire at a loss of between \$50,000 and \$75,000 each will be rebuilt.

These announcements of the second quarter of 1911 were as follows:

Name.	Location.	Capital stock.
Maryville Hosiery Mills	Maryville, Tenn. (rebuild after fire).	\$65,000
Chatham Hosiery Mills	Durham, N. C. (rebuild after fire).	50,000
Carr Knitting Mills	Suffolk, Va.	15,000
Tar River Hosiery Mills	Elizabeth City, N. C.	10,000
R. T. Jaynes of Wallhalla, S. C.	Spartanburg, S. C.	...
United Hosiery Mills	Anniston, Ala.	100,000
		\$240,000

Dunean Mills.

[Special Cor. Manufacturers Record.]
Greenville, S. C., July 1.

The work on the Dunean Mill, Greenville's million-dollar establishment for the manufacture of India lawns and linons, is progressing satisfactorily, and if the prediction of J. Adger Smyth, Jr., president of the company, comes true, it will be ready for operation not later than January 1, giving employment to about 500 skilled mill operatives.

The construction of the Dunean Mill is possibly altogether different from any other in the South, and the uniqueness of its electrical equipment, for it will be run by electricity altogether, is attracting attention. The electrical equipment, which will be installed by the General Electric Co. of Schenectady, will necessitate the use of about 2000 individual motor drives. Each one of these motors will be one-third horse-power. The motive power for each of the spinning frames used in accommodating the 50,000 spindles will be furnished by one of these little motors. The accompanying looms, 1200 in all, will each have its individual motor. Each picker will also have a separate motor. It will take about 1500 horse-power to operate

the mill, and a contract for the electricity has been made with the Southern Power Co. of Charlotte, N. C. It is stated that this system of operating the mill will effect a decided economy in operation. It eliminates the use of all belts and shafting. The only place where belts and shafting will be used at all will be in the carding-room, where a small amount of each will have to be used. Aside from insuring sure speed, better lighting and ventilation, the individual motors will save, it is estimated, from 20 to 40 per cent. of the power.

The Dunean Mill will be composed of three buildings. The main structure will be two stories; constructed of white pressed brick laid in black mortar; 130 feet wide by 472 feet long. The weave shed will be one story, of saw-tooth construction, 393 feet long by 209 feet wide. The clothroom will be two stories high, 47 feet wide by 209 long. The company was formed some few months ago. Its officers are J. Adger Smyth, president; Claude D. Smith, secretary. The superintendent will be T. B. Wallace, now superintendent of Watts Mill, Laurens. His place at the Watts Mill will be filled by E. G. Jesse of Laurens.

ROY G. BOOKER.

Cotton Mills in Brazil.

[Special Cor. Manufacturers Record.]

Greenville, S. C., June 29.

Under the guidance of Mr. Ira W. Williams the State agricultural agent, Mr. Theophilo Ribeiro of Brazil has been spending a few days in South Carolina, and the most of that time in Greenville, studying the American methods of raising cotton. Mr. Ribeiro is here under the orders of the Brazilian Government, and will spend some time in this country studying carefully all the methods of agriculture of all kinds in the different sections of the United States. He said that he was very much pleased with the methods and implements used by American farmers, and under the direction of Mr. Williams he purchased a good supply of sample tools from the local hardware stores.

In speaking of the manufacturing that was carried on in his country Mr. Ribeiro stated that in the 21 States that composed the country of Brazil there were 140 cotton mills. These mills, for the most part, manufacture the short-staple cotton into cheap grades of cloths, and to a small degree carry on the manufacture of their sheetings, print cloths, etc., similar to the manufacturing of the same goods in the South. The amount of capital invested in the mills varies from small amounts to \$10,000,000. The largest mill in the country is located on a very beautiful site in the capital city, Rio de Janeiro. He states that this mill in all its appointments is an ideal one. The operatives' cottages have about them a comfortable and neat appearance, and the mill itself is equipped for the best interests of both labor and capital.

The production of cotton in Brazil is about 500,000 bales per year, and as this is a little more than is needed in Brazil, some is exported to European countries at a good profit to the manufacturers. The higher grades of cotton goods are imported from other countries. One reason why manufacturing can be carried on in Brazil with a good profit to the manufacturer is the low wage scale. The women receive from 50 to 60 cents per day, while the average Brazilian laborer gets for his services by the day from 70 to 80 cents.

ROY G. BOOKER.

Woodside Cotton Mills Co.

The Woodside Cotton Mills Co. of Greenville, S. C., has been chartered with \$3,000,000 capital stock, and merges three companies, in accordance with plan announced in special correspondence in the MANUFACTURERS RECORD recently. Woodside Cotton Mills of Greenville, Simpsonville (S. C.) Cotton Mills and Fountain Inn (S. C.) Manufacturing Co. are the three companies, having about 137,000 spindles and accompanying looms for the production of cotton cloth. New company's officers are: President, John T. Woodside; vice-president and treasurer, G. D. Woodside; vice-president and secretary, E. F. Woodside.

Brander Cotton Mills Corporation.

The Brander Cotton Mills Corporation of Concord, N. C., does not plan any enlargements in connection with its recently-mentioned increase of capital stock from \$85,000 to \$125,000. This action was taken to retire bonds and place the enterprise on a stock basis. The company operates 4000 ring spindles, 40 broad looms, etc., by electricity on the production of damask.

The Cotton Movement.

In the 10 months of the present cotton season, according to the report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, the amount of cotton brought into sight was 11,458,560

bales, an increase over the same period last season of 1,316,516 bales. The net exports were 7,345,110 bales, an increase of 1,520,246 bales. The takings were, by Northern spinners, 1,971,646 bales, a decrease of 26,591 bales, and by Southern spinners, 2,080,387 bales, a decrease of 87,243 bales. The takings to date by Southern mills are 108,741 bales more than the takings by mills in the rest of the country.

Contract for Greers Addition.

The Greers Manufacturing Co., Greer, S. C., has awarded contract to Gallivan Building Co., Greenville, S. C., for erection of additional building for enlargement mentioned last week. This building is to be four stories high, 110x130 feet. There will also be erected a two-story 50x100-foot extension to warehouse. About 15,000 spindles and 400 looms will be added, increasing the Greer equipment to about 25,000 spindles and 700 looms. All contracts have been awarded, and the cost of buildings and machinery will be about \$250,000. Lockwood, Greene & Co. of Boston are the engineers in charge.

Will Install Electrical Drive.

The Glenn-Lowery Manufacturing Co. of Whitmire, S. C., will install the electrical drive in place of its present steam power. It has contracted for 1500 electrical horse-power with the Southern Power Co. of Charlotte, N. C. The Glenn-Lowery plant operates 36,000 ring spindles, 775 broad looms, 125 narrow looms, etc., on the production of print cloth.

Westervelt Mills.

The Westervelt Mills of Greenville, S. C., is progressing with the construction of the company's plant, previously detailed. This mill is to manufacture India lawns and linons, its equipment being 50,000 spindles and 1400 looms. Building and machinery contracts have been awarded. J. I. Westervelt is president of this \$1,000,000 company.

To Manufacture Nets.

A company has been organized with \$50,000 capital stock to establish a plant at St. Louis for manufacturing fish nets. It has leased three floors at 410 N. 2d street from Charles W. Martin & Co. of St. Louis.

Textile Notes.

The Suffolk (Va.) Knitting Mills will rebuild plant reported burned at a loss of about \$57,000.

The American Ramie Co. of New Hartford, Conn., is reported as to establish plant at Franklinton, Md.

The Terra Alta (W. Va.) Woolen Mills will rebuild plant reported burned last week at a loss of \$75,000.

Oklahoma Agriculture.

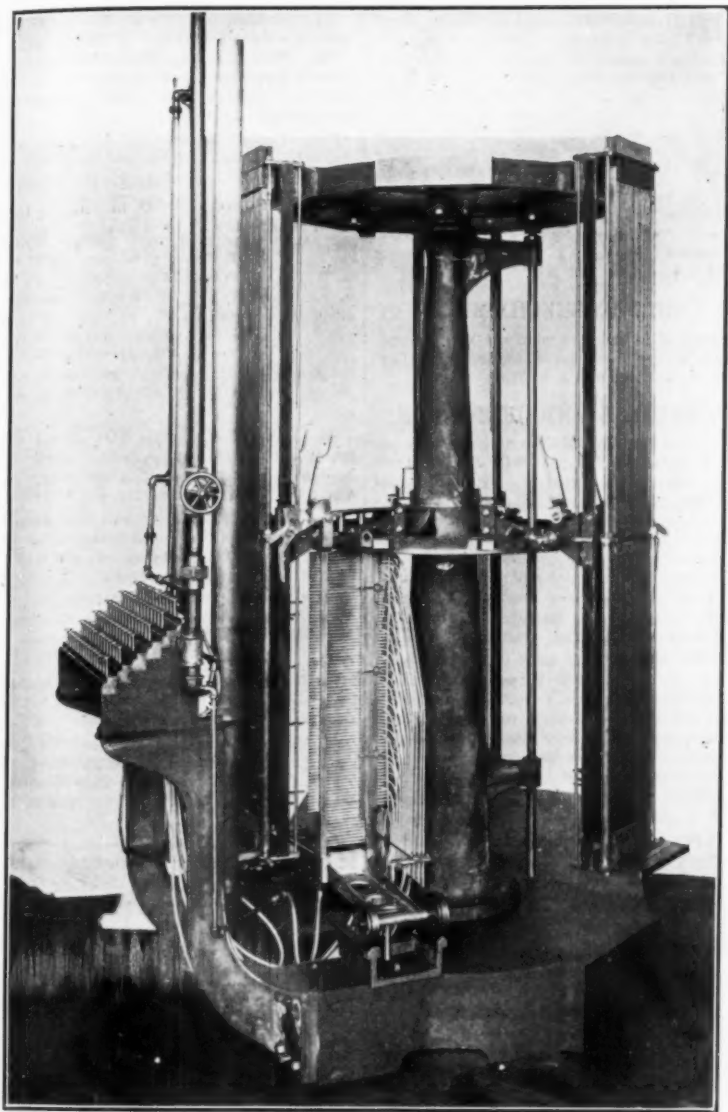
State Labor Commissioner Charles L. Daugherty has compiled figures showing increases in Oklahoma values of agricultural products between 1909 and 1910 as follows: Alfalfa, from \$97,690 to \$1,930,800; broom corn, from \$2,673,440 to \$2,865,625; tobacco, from \$1477 to \$9546; poultry, from \$1,059,876 to \$1,260,216; eggs, from \$2,001,700 to \$3,352,395; feathers, from \$9385 to \$59,806; cattle, from \$31,111,470 to \$31,498,290; horses and mules, from \$3,975,500 to \$6,852,150; sheep, from \$123,970 to \$132,152; goats, from \$7032 to \$7984; wheat, from \$16,704,738 to \$17,068,173; oats, from \$1,987,789 to \$2,016,119, and hay, from \$2,154,176 to \$3,040,050. There was a decrease in corn from \$15,096,426 to \$8,804,880, and also a decrease of nearly \$8,000,000 in the value of hogs.

MECHANICAL

A New Linecasting and Typesetting Machine.

A machine that has been in process of development for the past 20 years by Rev.

Son, Philadelphia, the contractors for making a number of them, will have one completed in August with all the latest improvements incorporated, and will have others ready for shipments to begin by the first of January. It is possible that a plant for manufacturing them may be established in Shelby eventually by the Cade



THE CADE TYPESSETTING MACHINE.

Baylus Cade of Shelby, N. C., is now being manufactured by A. Macke & Son, Philadelphia. The Cade typesetter has been thoroughly tested, and it is said that it bids fair to come into use as an economical and rapid typesetting machine.

It is a little less than six feet in height. The mechanical power is supplied by compressed air. By referring to the accompanying illustration, the construction will be seen to consist of small tubes, 36 keys controlling 78 characters and using in all 2736 matrices. By using this number of keys and matrices it is claimed that an extra keyboard can be attached to the rear of the machine and two men can set type with the same facility as on two separate machines. A recent improvement eliminates about two-thirds of the matrices, in which style only one keyboard is practicable.

This machine has the standard typewriter keyboard, so that anyone that can use a typewriter can use it, and it is said that the same speed may be acquired in operating. It can be easily set up, repaired and cared for by anyone with ordinary mechanical ability, and when unpacked can be set up in a very short time.

The reported successful demonstration of the machine in Philadelphia has attracted attention to it in this country and abroad. It is expected that A. Macke &

Manufacturing Co., recently organized with E. B. Hamrick, president, and J. H. Quinn, secretary and treasurer.

Knickerbocker Portland Cement Plant.

The Knickerbocker Portland Cement Co.'s new plant at Hudson, N. Y., began operation in June. It has a capacity of 3000 barrels daily, and its location is exceptional in relation to raw materials and shipping facilities. The company owns about 600 acres of land, in the underlying strata of which is found fine grades of limestone, shale and clay. In addition to having side-tracks connecting with the Boston & Albany and the New York Central railways, the company has a dock on the Hudson River to enable it to load cement directly into vessels. These excellent shipping facilities will not only enable the company to ship product by rail through an important consuming area in the North, but by water along the entire Atlantic seaboard.

The plant is simple in arrangement and substantial in construction. It is built throughout of concrete and steel. Construction was started on August 1, 1910; therefore, it was completed within less than a year. In designing the plant special attention was given to providing more than ordinary facilities on the raw end in

order to insure an always ample supply of prepared raw material. Huge storage bins have been installed, so that operation of the rest of the plant will not be interrupted should any breakdown occur on the raw end. The equipment is of the most approved type, and the machinery is all driven by individual motor drive.

The wet process of mixing materials was adopted, as it was felt by this system a more absolute uniformity of product could be maintained. To further insure the highest quality and uniformity of its product, the company has established a more than ordinarily thorough system of analyses and tests. The raw materials and the cement passing through the different processes are tested by chemists and the results are checked up by the chief chemist. As a still further precaution, an additional test is made before shipment, and no cement is shipped until it receives the final approval of the physical test department, which is entirely independent of the chemical and manufacturing department.

While the Knickerbocker Portland Cement Co.'s plant is new, the heads of its operating department are all men of many years' experience in manufacturing Portland cement, so that while it is a new company with a new plant, it is an old and experienced organization. S. H. Bassett, president of the company, was president and general manager for many years of the Iola Portland Cement Co. at Iola, Kans. M. H. Hammond, general superintendent, who designed and superintended the construction of the Knickerbocker plant, was also connected with the Iola company. The Knickerbocker general sales offices are in the Metropolitan Life Insurance Building, 1 Madison avenue, New York, in charge of Thos. M. Magiff, who has had wide experience in selling and distributing Portland cement.

A Portable Machine for Making Railroad Crossties.

The machine shown in the accompanying illustration has been designed to manufacture railroad crossties in the woods or wherever the tie timber may be. It has been patented by the inventor, R. N. Longworth, Somerset, Ky. It is estimated that it will finish 250 crossties per day. It is mounted on wheels, and is propelled and operated by draft animals. The



PORTABLE RAILROAD CROSSTIE CUTTER.

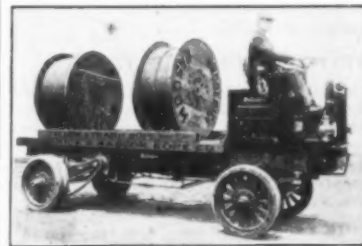
lower frame, arches and carriage are made of steel I-beams, and the bearings, castings, etc., are of steel or iron, as may be necessary. The knives are mounted on the carriage, which is forced down for cutting between vertical guides formed by the flanges on the arches. The castings on which the knives are mounted are on the cross bars of the carriage, and may be ad-

justed as to space between by means of a hand-wheel. The four blades are set in such a way that they make a clean cut on the downward movement. The power is transmitted to the carriage by means of a sweep and screw, which acts directly on the carriage through a clutch operated by hand-wheel. The carriage and blades are raised by counter weights through a cable passing over sheaves at top of arches. Two sides are faced off at each downward cut of the blades. If it is desired to face four sides, the tie is simply turned over and the other two sides faced at the next downward cut.

It is stated that the machine has been approved by mechanical engineers, and is claimed to be simple in construction, durable and efficient, inexpensive to manufacture, and to make an estimated saving of 50 per cent. in the making of hewn ties. Persons interested in the American patents of the machine may address the inventor at Somerset, Ky.

Handling Wire Rope on Auto-Truck.

In order to make prompt shipments and delivery of its "Yellow Strand" wire rope, the Broderick & Bascom Rope Co., 809 N. Main street, St. Louis, has inaugurated the use of auto-trucks. The accompanying illustration shows a five-ton Reliance



WIRE ROPE ON AUTO-TRUCK.

motor truck with a load of 11,510 pounds of wire rope. It is believed that this is the first house to adopt the use of auto-trucks for handling these heavy reels of wire rope. The use of this truck has proven very satisfactory to the company in its transportation problems.

Mississippi City Factories

In 1900 the capital invested in factories at Jackson, Miss., was \$1,783,000 and the value of the products was \$3,113,000, and

the capital invested in factories at Hattiesburg, Miss., was \$1,341,000 and the value of the product \$1,251,000.

Kentucky Coal.

Chief Mine Inspector C. J. Norwood of Kentucky shows in his annual report that the State produced 14,720,011 tons of coal in 1910.

Construction Department

TO OUR READERS!

In order to follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "it is reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be shown on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

"In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned."

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year. On all advertising contracts in the Manufacturers Record for three months or longer a subscription for the contract period to the Daily Bulletin is included.

BRIDGES, CULVERTS, VIADUCTS

Ga., Baxley.—Baxley Chamber of Commerce, R. T. Pickens, secretary, is promoting erection of steel bridge across Altamaha River; length about 600 feet, with elevation above high water for boat passage; plans and specifications to be prepared at early date.

Md., Sharptown.—State Roads Commission, Union Trust Bldg., Baltimore, Md., will receive bids until July 17 for construction of bridge over Nanticoke River between Dorchester and Wicomico counties at Sharptown; total length 640 feet, including pivot draw, with two 75-foot openings; six spans; deck-plate girder construction; draw-span through riveted truss. (See "Machinery Wanted.")

Miss., Hernando.—D. E. Wilson, Nesbitt, Miss., may be addressed relative to construction of bridge. (De Soto county recently noted as contemplating \$25,000 bond issue for bridge construction.)

Tex., Bartlett.—Bartlett Western Railway Co., C. J. Grainger, general manager, will construct one 60-foot wooden bridge.

Va., King George.—King George county will construct bridge with concrete abutments and pedestals over Lamb's Creek; bids received until July 24; P. St. J. Wilson, State Highway Commissioner, Richmond, Va. (See "Machinery Wanted.")

CANNING AND PACKING PLANTS

Fla., Tampa.—Farmers' Ice & Canning Co., Amos W. Braselton, president, Atlanta, Ga., will build cannery. (See "Ice and Cold-Storage Plants.")

W. Va., Martinsburg.—Jefferson Evaporating Co. chartered with capital stock of \$10,000 by Elsie B. Stewart, Robert H. Stewart, Nota K. Weaver, J. M. Woods of Martinsburg and Benjamin G. Pratt of Hackensack, N. Y.

W. Va., Parsons.—Parsons Canning & Manufacturing Co. chartered with \$5000 capital stock by John F. RePair, W. J. Corrick, J. E. Catherman, J. A. Rexrodes, Burt Wilson and W. B. Haller.

CLAYWORKING PLANTS

Ala., Hamilton.—P. H. Dunn and associates contemplate establishment of plant to manufacture 20,000 to 25,000 bricks daily. (See "Machinery Wanted.")

COAL MINES AND COKE OVENS

Ala., Birmingham.—Winston Coal Co. increased capital stock from \$13,000 to \$25,000.

Ky., Perry County.—J. H. French of New York states he has not purchased coal land in Kentucky. (Recent report incorrect.)

Va., Big Stone Gap.—Log Mountain Coal Co. chartered with \$900,000 capital stock; president, S. G. Seligman of Tamaqua, Pa.; vice-president, George Ball of Minersville, Pa.; treasurer, Frank J. Bender of Minersville, Pa.; secretary, J. W. Kelly of Big Stone Gap; consolidates Kelly Coal Co., Clear Creek Coal Co., Caney Creek Coal Co. and Poplar Hignite Coal Co.; annual output, 250,000 to 500,000 tons coal; will install new washers and control power plant; invest \$50,000 for improvements. (Recently incompletely reported under Pineville as Log Mountain Coal & Coke Co.)

W. Va., Charleston.—Coopers Creek Coal Co. chartered with \$10,000 capital stock by S. A. Moore, C. F. Teter and E. M. Moore of Philippi, W. Va.; Grant Copenhagen and O. D. Strader of Big Chimney, W. Va.

W. Va., Fairmont.—Black Diamond Company chartered with \$10,000 capital stock by George C. Betner, C. W. Munden, J. G. Lake, Henry E. French and J. C. Thompson.

W. Va., Preston County.—Victoria Coal Co. incorporated with \$51,000 capital stock by C. H. Alderfer, Press Styer, C. H. Stiner, J. S. Rembo and J. T. Ebert, all of Norris-town, Pa.; will purchase 4800 acres of coal land formerly owned by Manufacturers' Coal & Coke Co., Independence, W. Va.; organization not completed; plans for development not determined.

CONCRETE AND CEMENT PLANTS

Okla., Tulsa.—Tulsa Portland Cement Corporation (previously noted to establish plant) is proceeding with construction at Union City (suburb); to equip with four rotary kilns and other machinery for daily output of 2000 to 2500 barrels cement; H. R. Crews, president; O. H. Leonard, vice-president; L. F. Barnes, general manager; Chas. L. Huonker, secretary-treasurer; capital stock, \$700,000.

COTTON COMPRESSES AND GINS

Ala., Decatur.—Morgan County Cotton Compress & Warehouse Co. incorporated with \$25,000 capital stock by Robert G. Cortner, H. D. Bynum, R. N. Harris, Jr., and I. E. Daley; will erect building for cotton compress and warehouse; one story high and 250 feet square; capacity 1000 bales daily.

Ark., Argenta.—Gulf Compress Co. will rebuild plant reported burned at loss of \$200,000 to \$250,000.

Ga., Camilla.—Camilla Compress Co. incorporated by T. A. Acree, F. S. Perry, F. R. Bennett, W. W. Cullens and others. (This is company recently reported organized with \$60,000 capital stock.)

N. C., Statesville.—L. B. Bristol will rebuild cotton gin previously burned.

S. C., Greenville.—Piedmont Bonded Warehouse & Compress Co. awarded contract to Jamison & Morris, Greenville, to erect compress and warehouse recently noted; 100x400 feet; three stories; reinforced-concrete construction (See "Machinery Wanted.")

Tenn., Brighton.—Company has been or-

ganized with L. K. Baird president and M. E. Hill secretary-treasurer to establish cotton gin; capital stock, \$5000.

Tenn., Memphis.—Memphis Warehouse Co. writes to Manufacturers Record confirming report it will invest about \$500,000 to about double present capacity; will erect 45 warehouses of reinforced concrete construction, install fourth compress, construct 2½ miles trackage, extend sprinkler system (now only in warehouses) to all parts of plant, etc.; plans and specifications by company's manager, W. G. Turner; plans are not officially ready for contractors. (Lately mentioned.)

Tex., Trinity.—Trinity Compress & Gin Co. organized with W. A. Bell, president; J. F. Standley, vice-president; John E. Peyton, treasurer; capital stock \$33,500; will erect cotton compress and gin.

COTTONSEED-OIL MILLS

Tex., Sherman.—Sherman Oil Mill incorporated with \$75,000 capital stock by M. C. Dorset, N. B. Birge and J. F. Holt.

DRAINAGE AND IRRIGATION

Ark., Wilson.—W. K. Harrison, Bob Friend, C. L. Dresback, John Uzzell, Joseph Myers and others contemplate organization of Golden Lake Drainage District, or District No. 11; plan construction of system to drain about 30,000 acres in Mississippi county; proposed canals to be 40 miles long; main canal to be 10 miles long and five laterals, totaling 30 miles; main canal 40 feet wide at bottom, 60 feet at top and 10 feet deep; W. E. Ayres, engineer for district, estimates cost at \$100,000.

La., Gonzales.—New River Drainage District will vote August 1 on \$70,000 bond issue and \$105,000 bond issue to pay operating expenses, maintain present drainage canals and provide for enlargements or extension that may be decided upon later; Leon Picard is president of District Commissioners.

S. C., McClellanville.—F. G. Eason, Assistant State Engineer, Charleston, S. C., states plans for drainage of lands near McClellanville include 5750 acres, 1250 acres being swamp lands; cost \$15,000; will construct eight canals, 15 miles long, 8-foot bottom, 6 feet deep; one-half of one side slopes; will require 100,000 cubic yards of excavation; cost 15 cents per yard; hand labor; date of opening bids not set. (Recently noted.)

Tex., Midland.—Victor Irrigation Co. incorporated with \$125,000 capital stock by Alfred C. Owens, Jacob C. Swain and Parker B. Rogers.

ELECTRIC LIGHT AND POWER

Ala., Tuscaloosa.—F. G. Blair and H. B. Foster applied for franchise to construct electric-power plant.

Ga., Baxley.—City is considering, it is reported, bond issue for construction of electric-light plant. Address The Mayor.

Mo., King City.—City is considering construction of electric-light plant; is prepared to grant franchise. Address J. W. Sullinger, City Attorney.

Mo., Kansas City.—City engaged McLaughlin Engineering Co., Kansas City, as engineer for construction of municipal electric-light plant and distributing system, for which \$350,000 has been appropriated; turbine installation; brick building.

N. C., Raleigh.—Carolina Power & Light Co., Chas. E. Johnson, president, is progressing with survey of power line between Raleigh and Goldsboro; will supply Goldsboro with electricity for street cars, lighting and industries; also supply six towns on line between Raleigh and Goldsboro.

Okla., Shawnee.—Shawnee Gas & Electric Co., Wm. Mainland, president, Oshkosh, Wis., advises Manufacturers Record that definite plans are not yet made for rebuilding plant recently reported burned at loss of \$150,000; has erected galvanized-iron building on site of old plant and reclaimed sufficient machinery for temporary use.

S. C., Anderson.—Anderson Water, Light & Power Co. will install steam turbine plant to generate about 1600 horse-power; estimated cost, \$53,000; equipment to include condensers, cooling towers, switchboards, transformers, etc.; present city sub-station buildings are to be enlarged to accommodate new machinery.

Okla., Waynoka.—City receives bids until about July 15 for furnishing material for

electric-light plant; contemplates electric motors for pumping; cost of equipment about \$3000; William Haviland, Alva, Okla., is engineer; W. H. Olmstead, Mayor. (Recently mentioned. See "Water-Works.")

Tex., Bonham.—Bonham Electric & Gas Co. contemplates construction of electric plant.

Tex., Port Lavaca.—City Commissioners granted franchise to W. E. Shell & Co. to construct electric-light plant. (Recently mentioned.)

Tex., Port Lavaca.—City Commissioners granted franchise to C. J. and J. K. Spittal (owners of Port Lavaca electric-power plant) to operate electric-light system.

Va., Alexandria.—Alexandria County Lighting Co. incorporated with \$550,000 capital stock; W. J. Rodgers, president, 932 C St. S. W.; G. W. Lucas, vice-president; W. G. Smith, secretary; F. R. Weller, treasurer; all of Washington, D. C.; will succeed Alexandria Electric Co., which controls electric franchise in city and is extending system through Alexandria county; will expend \$50,000 for installation of machinery in power-house.

Va., Danville.—Danville Water-Power Co. incorporated with \$50,000 capital stock; R. A. James, president; J. F. Risen, vice-president; H. S. Lanier, secretary and treasurer.

Va., Lawrenceville.—City will vote August 1 on \$50,000 bond issue for construction of electric-light plant, sewer system and water-works; D. S. Hicks, Jr., Mayor.

Va., Smithfield.—Smithfield Water Co., B. P. Gay, manager, contemplates construction of electrical plant operated by present water-power.

W. Va., Charles Town.—Thomas C. Bowling and associates purchased for \$16,500 plant of Charles Town Light & Power Co.

W. Va., Charles Town.—Citizens' Electric Co. chartered with \$50,000 capital stock by Thomas C. Bowling, H. C. Getzendanner, Gward D. Moore, G. E. Hughes and B. L. Langden.

W. Va., New Cumberland.—Hancock County Electric Co. incorporated with \$12,000 capital stock by Nelson D. Miller, John F. Flood, Harry E. Armstrong, Samuel E. McCoy and Samuel G. Stewart, all of Steubenville, O.

W. Va., Wheeling.—Wheeling Traction Co. is making improvements to power-house.

FLOUR, FEED AND MEAL MILLS

Okla., Sapulpa.—Big Irish Milling Co. incorporated with \$16,000 capital stock by H. H. McFann, G. W. McFann, S. S. Owen, E. H. Salrin and Virgil Hicks.

Va., Lynchburg.—Lynchburg Milling Co. will improve and enlarge flour mill; erect addition, brick with metal roof; cost \$12,000.

FOUNDRY AND MACHINE PLANTS

Ga., Atlanta.—Structural Steel.—Virginia Bridge & Iron Co., main offices at Roanoke, Va., will double capacity of present plant and construct large plant on four-acre site recently leased at East Point; will erect main shops, machine shop, templet shop, power-house, storage, etc., all of steel manufactured by company.

N. C., Taylorsville, R. F. D. No. 3.—Grist and Feed Mills.—Carson-Hubbard Mill Co. organized to manufacture Carson grist and feed mills; portable; built in 12, 16, 20, 24 and 30-inch burrs; after August 1 will finish five mills per day; shipping point, Hiddenite, N. C.

Va., Richmond.—Road Machinery.—Good Roads Incorporated with \$5000 capital stock; Nat Tyler, Jr., president, Short Hills, N. J.; M. Brooke Tyler, vice-president, New York; Edith L. Bligh, secretary and treasurer, New York.

W. Va., Wheeling.—Bridges.—Riverside Bridge Co. will increase capacity of plant.

GAS AND OIL DEVELOPMENTS

Ark., Hope.—Bodcaw Oil & Gas Co. incorporated with \$20,000 capital stock by C. J. Baer, H. J. Lemley, M. C. Marshall, A. P. Dyke and F. S. Hunt.

ICE AND COLD-STORAGE PLANTS

Fla., St. Petersburg.—C. W. Hicks and associates will establish plant with daily capacity 25 tons of ice.

Fla., Tampa.—Farmers' Ice & Canning Co.,

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Amos W. Braselton, president, Atlanta, Ga., will build ice, cold-storage and canning plant; building of artificial stone, 80x100 feet, two stories; replace burned plant.

Fla., Tampa.—G. W. Judy & Co. are receiving estimates on cold-storage plant for produce-house recently noted to be erected; also discussing construction of concrete and steel building; will award contract about August 1. (See "Machinery Wanted.")

Md., Salisbury.—Salisbury Ice Co. will rebuild plant reported burned at loss of \$25,000.

S. C., Mayesville.—L. B. Grandy contemplates establishment of small ice plant. (See "Machinery Wanted.")

Tex., Brownwood.—Brownwood Ice & Fuel Co. will rebuild ice plant recently burned at loss of about \$50,000.

IRON AND STEEL PLANTS

Ala., Birmingham.—Iron Furnaces, etc.—George G. Crawford, president of Tennessee Coal, Iron & Railroad Co., wires Manufacturers Record that official announcement of plans for operations are as follows: Blow in Ensley furnace No. 5 on July 5; blow in Ensley No. 1 on July 6, 7 or 8; continue operating five open-hearth furnaces at Ensley steel plant; continue operating Pratt mines Nos. 7 and 14, and begin operating new slope at Sumter, latter to supply coal for coke ovens at Nos. 3 and 4 furnaces at Bessemer, replacing present Senat-Solvay coke; increase to full time mines operating on part time; resume operating coke ovens at Pratt mines Nos. 3, 4 and 5, 400 ovens at Pratt City plant, and 150 ovens at Nos. 3 and 4 furnace plants at Bessemer; resume mining iron at Muscoda mines Nos. 1 and 2 and Fossil No. 9, besides increasing production from present slopes; continue plan of construction for \$100,000 coal-washing plant heretofore announced.

Va., Buena Vista.—Iron Furnaces, etc.—Alleghany Ore & Iron Co., H. B. Spackman, president, Coatesville, Pa., will operate its Oriskany iron mines and Alleghany and Buena Vista blast furnaces heretofore leased to Oriskany Ore & Iron Corporation; Buena Vista lease has been extended four months to work up stock. Alleghany company's general offices are at Iron Gate, Va.

W. Va., Wheeling.—Steel Castings.—Alloy Steel Casting Co. chartered by W. M. Carr, Peebles Tatum, A. S. List, L. J. Bayha and S. M. Noyes.

LAND DEVELOPMENTS

Ala., Birmingham.—Stacy Land Co. incorporated with \$300 capital stock by G. C. Stacy, W. D. Nesbitt and E. K. Campbell.

Fla., Miami.—Biscayne Bay Front Realty Co. incorporated with \$75,000 capital stock; controls water-front property from Miami to Lemon City, and proposes to erect hotels, build railroads, etc.; James R. Reid, president and manager, Augusta, Ga.; Claude E. Sawyer, vice-president, Aiken, S. C.; Horace M. Cassels, secretary-treasurer, Ellenton, S. C.

Fla., Walton.—Indian River Heights Land Co. incorporated with \$15,000 capital stock; Charles H. Taylor, president and treasurer; Francis H. Taylor, vice-president; Minnie Taylor, secretary.

Ga., Albany.—City's improvements to park and cemetery will be made under supervision of Park Commission; \$20,000 available; R. J. Edgerly, City Engineer. (Recently noted.)

Ga., Macon.—Association Realty Sales Co. incorporated with \$100,000 capital stock by T. C. Parker, E. H. Holland, W. J. McBride, Jesse B. Hart and others to develop and colonize farm lands; will purchase 12,000 acres in South Georgia and divide into small farms; offices in Grand Building.

Ga., Savannah.—Brewster Lumber Co. wires Manufacturers Record it has purchased Vallambrosia plantation, partly developed, and expects to divide into small farms for cultivation; about 5000 acres suitable for growing cotton, corn and various trucking crops; located on Ogeechee River and Seaboard Air Line and Atlantic Coast Line railways, 12 miles from Savannah.

Ga., Savannah.—Joseph Hull Company incorporated with \$90,000 capital stock by Joseph Hull, Alexander Blue Hull and Daniel Blue Hull; contemplates development of Mills-Taylor tract on Savannah River.

Ga., Toccoa.—F. Marion Thomason, Gould Bldg., Atlanta, Ga., will develop summer resort; erect dining hall, observatory and 40 bungalows; cost \$20,000; date of opening bids for construction not set.

Ky., Newport.—Chesapeake & Ohio Railway, F. I. Cabell, chief engineer maintenance of way, Richmond, Va., will develop town at Silver Grove near Newport.

La., Crowley.—Louisiana Realty & Development Co., H. M. Bone, president, will acquire lands near Crowley and develop for colonization purposes. (Recently reported organized with \$100,000 capital stock.)

La., New Orleans.—Pointe Coupee Land & Improvement Co. incorporated with \$50,000 capital stock; Samuel R. Ely, president; Walter C. Wright, vice-president; William Andrew Collins, secretary-treasurer.

La., New Orleans.—Delta Land Development Co. incorporated with \$150,000 capital stock; J. E. Burgulieres, president; E. A. Pharr, vice-president; Jules M. Burgulieres, treasurer; E. A. Burgulieres, secretary.

Md., Ednor.—Hills of Maryland Orchard Co. incorporated with \$100,000 capital stock by Francis Thomas, Ednor, Md.; E. Clifton Thomas and D. W. Ballinger of Washington, D. C.

N. C., Manchester.—William Kent, member of Congress, Washington, D. C., and J. F. Jordan of Guilford county, North Carolina, purchased 40,000 acres land; will develop for orchards; plant 100-acre orchard at first; construct sand-clay roads; construct highway to Fayetteville and Pinehurst, etc. Mr. Kent wires Manufacturers Record that plans are not ready for publication, but he will state details soon.

S. C., Sumter.—Ligon Land Co. incorporated with \$50,000 capital stock by J. R. Ligon and A. C. Ligon.

Tex., Bay City.—Southern Development Co. (recently reported incorporated with \$300,000 capital stock under Kansas City, Mo.) purchased 4000 acres near Bay City; will plant in pecan and fig trees; propose to plant 1000 acres each year, then divide land into 5 and 10-acre tracts and sell; about \$100,000 to be expended on first 1000 acres and after first year \$75 to \$100 per acre on remainder of land; shell roads and other improvements contemplated; Hope Thompson, Rock Island, Ill., is president.

Va., Charlottesville.—Pantops Orchard Co., Samuel B. Woods, president, will expend \$25,000 to develop 480 acres of fruit lands; propose to plant 18,000 peach and apple trees; erect dwellings and construct roads. (Recently noted incorporated.)

Va., Lynchburg.—Home Plot Land Co. incorporated with \$10,000 capital stock; W. H. Ford, president; James R. Ford, vice-president; R. C. Blackford, treasurer; R. J. Hughes, secretary.

Va., Richmond.—Westham Corporation incorporated with \$100,000 capital stock; William H. Ramkey, president; William P. Enright, vice-president; P. T. Wright, secretary-treasurer.

LUMBER MANUFACTURING

Ala., Hamilton.—P. H. Dunn has not decided plans to re-establish sawmill recently reported burned at loss of \$1500; may obtain small mill and repair engine, boiler and planer.

Ala., Sunflower.—Laubenthal Lumber Co., Meridian, Miss., will, it is reported, erect sawmill; expects to cut 30,000 feet daily; operate planer.

Ark., Cabot.—Bishop-Scott Land & Lumber Co. incorporated with \$15,000 capital stock by J. W. Bishop, J. I. Reynolds, E. T. Scott and John Reynolds.

Ky., Perry County.—J. H. French of New York states he has not purchased timber lands in Kentucky. (Recent report incorrect.)

La., Ville Platte.—Bowman-Hicks Lumber Co., Kansas City, Mo., will not build mill at Ville Platte. (Recent report incorrect.)

Okla., Heavener.—Hill-Fuller Lumber Co. incorporated with \$6000 capital stock by J. S. Hill, W. C. Judd and H. L. Fuller of Heavener, W. P. Harris, Waldron, Kans., and John W. Noblett, Heavener.

S. C., Aiken.—J. R. Morton will erect lumber plant; install lathe and planing machinery.

S. C., Lumber.—D. F. McKeithan Lumber Co. incorporated with \$200,000 capital stock by George E. Dargan and A. S. Dargan.

La., Glenmora.—Enterprise Lumber Co., Alexandria, La., is reported as negotiating for 16,000 acres timber land at about \$1,250,000; company wires Manufacturers Record that information cannot be given until after July 15.

Okla., Muskogee.—Sequoyah Land & Lumber Co., K. D. Blackwell, treasurer (recently noted incorporated with \$10,000 capital stock), is securing leases on lands; contemplates manufacture of wagon timbers. (See "Wood-working Plants.")

Tenn., Memphis.—Shelby Export Lumber Co. incorporated with \$5000 capital stock by Minna M. Dorsey, A. M. Handley, M. C. Reynolds, John Henry and W. H. Moore.

Tenn., Memphis.—T. S. Denton Lumber Co. incorporated with \$10,000 capital stock by T. S. Denton, J. M. Raymond, M. C. Ketchum and others.

Tenn., Memphis.—J. E. Munal & Sons will probably rebuild sawmill in New South Memphis recently reported burned.

Tex., Hemphill.—W. H. Knox, Livingston, Tex., will not erect lumber plant at present. (Recently noted.)

Tex., Mt. Vernon.—National Lumber & Crocoting Co., Texarkana, Ark., will erect sawmill; will develop white oak timber property.

W. Va., Hambleton.—Caldish Lumber Co. (successor to Blackwater Lumber Co.), Union City, Pa., wires Manufacturers Record it has purchased 4000 acres timber from Beulah Lumber Co. and Elk Lick Lumber Co.'s 4,000,000 to 6,000,000 feet timber, band-saw mill of 30,000 feet daily capacity, 10-mile railroad, etc.; proposes to improve mill by adding new carriage, hog and water tank of 200 to 300 barrels capacity, lay two and four-inch mains for fire protection, and probably install small machine shop. Caldish Lumber Co. has incorporated with \$250,000 capital stock and following officers: President, A. L. Caldish; vice president, G. H. Miller; secretary, Alfred W. Caldish; manager at Hambleton, E. G. Caldish.

MINING

Ky., Mexico.—Fluorspar.—Blue Grass Fluorspar Co., J. L. Lovell, president, will develop 3000-foot fluorspar property; daily capacity, 40 tons fluorspar; other officers, T. H. B. Haase, vice-president; R. C. Haase, secretary-treasurer; main office, St. Paul, Minn.

La., West Monroe.—Sand and Gravel.—W. L. Morgan, E. S. Ely and J. E. Morgan of West Monroe and Thomas Crighton of Minden, La., have 15-year contract to develop sand and gravel pits; will construct railroad facilities.

Mo., Joplin.—Lead and Zinc.—Little Isaclette Mining Co. will erect 200-ton mill.

Mo., Spring Garden.—Limestone.—Colorado Lime Co. will change name to Spring Garden Marble & White Lime Co. and expend \$100,000 to install machinery to cut marble from Miller county quarry; Joseph Pillman is general manager; main office in St. Louis, Mo.

Mo., St. Genevieve.—Limestone.—Rush Tower Limestone Co., St. Louis, Mo., is considering, it is reported, development of 200 acres of limestone land near St. Genevieve.

Okla., Davis.—Eaves Ross Mining & Development Co. incorporated with \$30,000 capital stock by R. L. Law, W. J. Butler, C. B. Kendrick and others.

Tex., Fort Worth.—Potash, etc.—Potash & Soda Co. incorporated with \$10,000 capital stock by J. L. Bren, W. T. Russell and B. P. Bailey; to mine and manufacture salts of soda and potash.

Va., Roanoke.—Follers Quarries Corporation incorporated with \$15,000 capital stock; L. E. Armantrout, president, Borderland, W. Va.; James P. Woods, vice-president, and M. L. Follers, secretary-treasurer, both of Roanoke.

MISCELLANEOUS CONSTRUCTION

Ala., Mobile.—Dredging.—Home Dredging Co. of Mobile is lowest bidder at 11.9 cents per cubic yard for dredging Section A of Mobile channel; Southern Dredging Co. of Mobile at 5.45 cents per cubic yard for Section B, and Coastwise Dredging Co. of Norfolk, Va., at 5.38 cents per cubic yard for Sections C and D; Congress appropriated \$50,000; C. A. C. Flagler, Major, Engineers, U. S. Engineer Office.

Ark., Crittenden County.—Levee.—St. Francis Levee Board, O. N. Killough, president, opened bids for seven miles of levee improvements, aggregating 500,000 cubic yards, estimated to cost \$102,000; John G. Sessions is lowest bidder at 19.8 cents per cubic yard to construct 224,000 cubic yards, about three miles of levee; Lowrance Bros. are lowest bidders at 28 cents per cubic yard for 137,000 cubic yards, about 2½ miles of levee, and at 21 cents per cubic yard for 165,000 cubic yards, 1½ miles of levee; B. G. Covington, chief engineer, 368 Randolph Bldg., Memphis, Tenn. (Recently mentioned.)

Fla., Tampa.—Dredging.—Hillsboro Dredging Co. of Tampa is lowest bidder for dredging from Clearwater Harbor to Tampa; channel to be dredged about three miles long; 50 to 100 feet wide; mean low water depth of seven feet; about 131,000 cubic yards of material to be removed; cost estimated at \$30,000; Capt. G. R. Spalding, Jacksonville, Fla., is engineer in charge.

Mo., Mexico.—Heating Plant.—City Council granted 30-year franchise to Mexico Power Co. to construct central heating plant; owns electric-light plant and proposes to utilize exhaust steam from plant to heat city.

Tex., Corpus Christi.—Wharf.—City voted \$50,000 bond issue for construction of wharf 200 feet wide and 1000 feet long, connecting with 12-foot channel to city to be dredged by Government. Address The Mayor.

MISCELLANEOUS ENTERPRISES

Ala., Birmingham.—Contracting.—Southern Asphalt & Construction Co. increased capital stock from \$5000 to \$50,000.

Ala., Mobile.—Ship-repair Plant.—Government will construct marine railways and docks in Pinto Pass; docks will be 50x500 feet; construction work only on repair plant (to be used exclusively for repair of Government vessels) is estimated to cost \$20,000; contract awarded to J. F. Gilbert.

Ark., Little Rock.—City Council appropriated \$40,000 for purchase of additional fire equipment and for installation of alarm boxes and telephone switchboard. Address The Mayor.

Fla., Tampa.—Contracting.—Hillsborough Building Co. incorporated with \$150,000 capital stock; Mahlon Stanley, president; C. L. Morrison, Jr., vice-president; R. M. Armstrong, secretary-treasurer.

Ga., Augusta.—Silk Cultivation.—Berkman & Co. of Fruitland Nursery, Jacob Phinizy, T. I. Hickman, V. K. Osigian and others organized company with \$1000 capital for experiment in silk cultivation in charge of Dr. Osigian; plan is to increase capital to \$20,000 for permanent enterprise.

Ga., Dalton.—Music Publishing.—A. J. Showalter Company, 24 S. Hamilton St., awarded contract to Joseph L. Wallace of Dalton at \$12,000 to erect two-story 50x126-foot mill-construction building; to be equipped for printing music; plans by Jack Head, Atlanta, Ga.; will purchase machinery after structure is completed. (Recently noted.)

Ga., Macon.—Contracting.—Schofield-Burkett Construction Co. incorporated with \$25,000 capital stock by A. D. Schofield, John S. Schofield and I. E. Burkett.

Ky., Louisville.—Automobiles.—Glenn-Bauer Motor Co. incorporated with \$20,000 capital stock by W. F. Glenn, Charles H. Bauer and W. Godfrey.

Md., Baltimore.—Iron, Steel and Metal.—Baltimore Iron, Steel & Metal Co. incorporated with \$10,000 capital stock by David Schugam, 135 N. Broadway; Meyer Scoll and Jacob Scoll.

Miss., Jackson.—Stationery and Printing.—Consumers' Stationery & Printing Co. incorporated with \$10,000 capital stock by J. W. Harding, A. S. Elam and others.

Mo., St. Louis.—St. Louis Plat & Record Co., Albert Weingartner, president, 322 Chestnut St., purchased two-story brick building at 297 Pine St.; draughting rooms on second floor; will build concrete vaults from first through second floor.

Mo., St. Louis.—Contracting.—H. W. Crosby Contracting Co. incorporated with \$2000 capital stock by H. W. Crosby, Emma Crosby and August J. Good.

S. C., Harris Springs.—Mineral Water.—Harris Springs Water Co. incorporated with \$50,000 capital stock by C. H. Pettus, J. L. Fleming, H. B. King and H. H. Alexander of Augusta, Ga.; proposes to develop springs and sell lithia water.

Va., Newport News.—Contracting.—New Century Industrial Corporation incorporated with \$2,000 capital stock; George W. Baughan, president; George Branch, vice-president; Charles S. Dixon, secretary-treasurer.

Va., Pocahontas.—Garage.—Southwest Virginia Motor Car Co. incorporated with W. L. Mustard, president; W. H. Walters, vice-president; J. Walter Graybeal, secretary; James H. McNeer, treasurer; will erect garage.

Va., Suffolk.—General Brokerage.—Norfleet Brokerage Co. organized to conduct general brokerage business, handling hay, grain, cement, sewer pipe, bar-iron, etc.; warehouse and offices in Suffolk. (See "Machinery Wanted.")

Va., Tazewell.—Automobiles.—Southwest Virginia Motor Car Co. incorporated with \$10,000 capital stock; W. L. Mustard, president; W. H. Walters, vice-president; J. W. Graybeal, secretary; W. H. McNeer, treasurer, all of Pocahontas, Va.

W. Va., Bluefield.—Limestone Plant.—Limestone Crusher Co. chartered with \$30,000 capital stock by L. A. Hooper, J. H. Hoody, C. L. Borden, Edward Mann and F. H. Borden.

W. Va., Clarksburg.—Motor Transfer.—Motor Transfer Co. chartered with \$10,000 capital stock by Charles N. Slater, H. B. Douglas, Edwin Flory, L. C. Hetrick and C. P. Stout.

W. Va., Huntington—Gas Lighting, Lamps, etc.—Cody Gas Arc Light Co. incorporated with \$20,000 capital stock by C. F. Cole, Henry Simms, Frank Enslow, Jr., O. M. Cole and R. W. Robertson; offices, 419 9th St.

W. Va., Mannington—Gas and Oil Supplies.—Prichard Supply Co. chartered by F. A. Prichard, J. R. Burt, H. J. Haugh, J. S. Leggett and C. A. Prichard.

MISCELLANEOUS FACTORIES.

Ala., Birmingham—Bottling Works.—Birmingham Coca-Cola Bottling Works will enlarge and improve plant at Avenue E and 22d St.; contract awarded to Standard Construction Co. of Birmingham.

Ark., Bentonville—Ice-cream.—Parks Springs Dairy Co. will erect ice-cream factory; bids opened July 1; cost of machinery, \$1000; daily capacity, 150 gallons ice-cream.

Fla., Tampa—Cigars.—Gonzalez, Fisher & Co. awarded contract to Aulick & Miller of Tampa to erect three-story brick factory building; plans by Bonfoey & Elliott of Tampa.

Fla., Tampa—Paper.—J. M. Towne of Tampa and J. H. Riviere, Palmetto, Fla., plan organization of company with \$50,000 capital stock to control patents for manufacturing paper from cabbage palmetto tree, sawgrass, etc.; proposes forming subsidiary companies to establish plants.

Fla., Tampa—Gas.—Tampa Gas Co. reorganized with John Gribbel, president, and D. J. Collins, vice-president and treasurer, both of Philadelphia, Pa.; will enlarge and improve plant and construct about 42 miles of additional gas mains, increasing system from 33 miles to 75 miles.

Fla., Tampa—Cigars.—V. Guerra, Diaz & Co. incorporated with \$150,000 capital stock; Marguerite Guerra, president; Frank Diaz, treasurer and general manager.

Ga., Albany.—City will probably commence work about October 1 on installation of water gas system; about 12 miles of mains; \$50,000 available; R. J. Edgerly, City Engineer. (Recently noted under "Miscellaneous Enterprises.")

Ga., Rome—Sweeping Compound.—Kildust Company (recently noted incorporated with \$2000 capital stock by Harry O. Ritz, E. R. Pennabaker and others) will erect building; ordinary construction; cost \$2000; date of opening bids not set; receive bids at once for machinery; daily capacity, 10,000 pounds sweeping compound; officers not elected. (See "Machinery Wanted.")

Ga., Atlanta.—Spartanite.—Spartanite Company, S. E. Barrett, general manager, 1012 Atlanta National Bank Bldg., will manufacture spartanite (plastic stone) for flooring, roofing and stucco work. This company has manufacturing and selling rights for Southern States.

Ky., Owensboro—Stenotypes.—Universal Stenotype Co., W. S. Ireland, president, is installing machinery to manufacture stenotypes; cost \$50,000 to \$60,000; has 60x100-foot main building, 60x100-foot power-house and 80x100-foot forging and tool house; equipped with sprinkler system. (Recently noted to have purchased plant formerly owned by Hickman-Ebbert Company.)

Md., Baltimore—Hats.—Townsend Grace Company, 209-211 W. Fayette St., is having plans prepared by Haskell & Barnes, 407 Wilson Bldg., Baltimore, for remodeling and enlarging building; erect additional story and install new fixtures; contractors estimating include Morrow Bros., 218 E. Saratoga St.; B. F. Bennett Building Co., 123 S. Howard St.; Walter E. Burnham, Law Bldg.; J. J. Walsh & Sons, 1533 Maryland Ave.; John K. Melver, 209 Wilson Bldg.; all of Baltimore.

Md., Baltimore—Marble.—Slisson Marble Co. organized with George W. Ashley, 2012 N. 13th St., president; Hugh Slisson, vice-president, and John R. Hugg, secretary-treasurer; will improve, install new machinery for continued operation of marble plant of Hugh Slisson & Sons on 23d near Oak Sts. (Recently mentioned.)

Md., Baltimore—Shirts.—M. Holtzman leased third floor of Babcock Building at Fayette and Hanover Sts., and will equip as shirt factory.

Md., Hoffmanville (not a postoffice)—Paper, etc.—Rockdale Roofing & Asbestos Products Co., Rockdale (R. F. D. from Pikeville, Md.), will establish plant to manufacture asbestos paper, mill board and roofing; Daniel Shamberger, president, Parkton, Md.; O. R. Ernigh, vice-president and manager, York Haven, Pa.

Miss., Gulfport—Syrup and Pickles.—W. S. Dickens will manufacture syrup and pickles. (See "Machinery Wanted.")

Miss., Canton—Peanuts.—Southern Peanut

Co. organized with \$10,000 capital stock by A. K. and L. Foot, H. W. Campbell, E. Levy and others; will plant and grow peanuts, manufacture them into oil butter, etc.

Mo., Kansas City—Butchers' Supplies.—Koch Butcher Supply Co. will erect factory and warehouse building. (See "Warehouses.")

Mo., Kansas City—Electric Signs.—Peerless Electric Sign Co. incorporated with \$35,000 capital stock by F. C. Sharon, W. R. Bump and John C. Meredith.

Mo., Moberly—Cornices.—Peter Stauffer will rebuild cornice factory; buildings 70x50 feet and 18x54 feet; ordinary construction; cost \$3500; construction begun. (Recently reported burned.)

Mo., St. Louis—Cash Registers.—St. Louis Cash Register Co. incorporated with \$500,000 capital stock by A. H. Fischer, R. M. Quackenbush and Leo Rassieur, Jr.

Mo., St. Louis—Clocks.—Imperial Clock Co. incorporated with \$100,000 capital stock by R. E. Hayes, G. Carlander and Peter H. Hunk.

Mo., St. Louis—Shipping Cases.—St. Louis Shipping Case Co. incorporated with \$50,000 capital stock by O. K. Berg, C. K. Berg and Emil Grauberg.

N. C., Durham—Cigars.—Bull City Cigar Co. incorporated with \$5000 capital stock by J. H. Stone, B. W. Harris, W. J. Berry and others.

N. C., Shelby—Typesetters, etc.—Cade Manufacturing Co. organized with E. B. Hamrick as president and J. H. Quinn as secretary-treasurer; to manufacture line-casting and typesetting machine invented by Rev. Baylus Cade.

N. C., Statesville—Gas.—Statesville Gas Co. incorporated with \$150,000 capital stock by W. E. Webb of Statesville, Harris N. Street and John M. Thissel, both of Philadelphia, Pa.

Okla., Muskogee—Gas.—Muskogee Gas & Electric Co., H. C. Hoagland, manager, will install 3000-horse-power engine, three-phase alternator, 520-horse-power boiler and switchboard equipment; build storeroom and shops at approximate cost of \$100,000; also lay new mains, erect new reducing stations and make general improvements in gas department; cost about \$100,000; construction begun; most of machinery ordered.

Okla., Oklahoma City—Shirts.—Lehr-Flora Shirt Co. incorporated with \$15,000 capital stock by Albert M. Lehr and Josephine L. Lehr of Oklahoma City and Charles M. Flora and Stella L. Flora of Independence, Kans.

S. C., Rock Hill.—Chamber of Commerce, W. S. Creighton, secretary, is interested in establishment of creamery. (See "Machinery Wanted.")

Tenn., Chattanooga—Chewing Gum.—Laxatan Company organized with \$20,000 capital stock; secured building at 619 Cherry St.; machinery purchased; P. M. Birmingham, president; James J. Fletcher, vice-president; George W. Worth, secretary-treasurer.

Tenn., Memphis—Tires and Rubber.—Whitaker Tire & Rubber Co. incorporated with \$5000 capital stock by John H. Patterson, A. Q. Gillespie, G. P. Douglas and others.

Tenn., Nashville—Gas.—Halo Gas Co. incorporated with \$4500 capital stock by A. J. White, J. M. Williams, L. J. Rust, W. B. Marr and John E. Fisher.

Tex., San Angelo.—J. J. Cook, Hot Springs, Ark., indefinitely postponed building of broom factory recently mentioned.

Tex., Wexlar—Creamery.—Wexlar Creamery Co. incorporated with \$3300 capital stock by J. O. Bettscher, M. R. Allen and T. A. Hill.

Va., Big Island—Paper, etc.—Bedford Pulp & Paper Co. awarded contract to Matthews-Curtis Company, Clifton Forge, Va., for concrete masonry dam, Coleman's Falls plant; for steel head-racks to Penn Bridge Co., Beaver Falls, Pa.; boiler contract to Heine Safety Boiler Co., St. Louis, Mo.; work supervised by Francis R. Weller, engineer, Hibbs Bldg., Washington, D. C. (Recently noted as inviting bids.)

Va., Lynchburg—Dispensing Apparatus.—Economy Dispensing Apparatus incorporated with \$25,000 capital stock; Walter Smith, president; W. B. Penick, vice-president; P. H. Dunnington, secretary and treasurer, Kirkland.

Va., Roanoke—Bakery.—Walter C. Michael Company incorporated with \$20,000 capital stock; W. C. Michael, president; W. W. Cox, vice-president; S. E. Michael, secretary-treasurer.

Va., Roanoke—Dairy.—J. B. Andrews, 412 Watt, Tetter & Clay Bldg., awarded con-

tract to C. C. Shockey, Roanoke, to rebuild dairy barn recently noted; dairy barn will be 90x100 feet; milking barn 36x100 feet; ordinary construction; electric lighting; cost \$8000. (See "Machinery Wanted.")

W. Va., Charleston—Drugs.—Fernbank Manufacturing Co. chartered with capital stock of \$5000 by Bernard B. Waynesboro of Boomer, W. Va.; Boyd Riley of Carbon, W. Va.; Gordon Waynesboro, Howard Waynesboro and Minnie Peters of Charleston.

W. Va., Grafton—Electrical Fixtures.—Grafton Electric Construction Co. chartered with \$6000 capital stock by William He, Geo. L. Abbott, W. F. Faust, John F. Cavenery and Wm. Archdeacon.

W. Va., Wheeling—Candy.—Thurber Candy Co. chartered with \$9000 capital stock by E. J. Thurber, F. M. Thurber, R. E. Florence, W. L. Criswell and Charles R. Goetze.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

La., Homer.—Louisiana & Northwestern Railroad, J. A. Knox, engineer, will, it is reported, rebuild repair shops recently reported burned.

W. Va., New Martinsville.—Baltimore & Ohio Railway Co., F. L. Stuart, chief engineer, Baltimore, Md., advises company has no work in contemplation. (Recently reported as to construct roundhouse and yards.)

ROAD AND STREET WORK

Ala., Greenville.—City will improve streets. Address Mayor Lane.

Ala., Montgomery.—City awarded contracts for laying sidewalks on Finley Ave., Tallapoosa, Sayre, Dorsey, St. Charles and North Decatur Sts.; Allen R. Gilchrist, City Engineer.

Ala., Troy.—City has \$20,000 available for construction of six miles of sidewalks; M. D. Pace, engineer in charge; contract recently noted awarded to C. B. Holt Contracting Co., Birmingham, Ala. (See "Machinery Wanted.")

Ark., Fort Smith.—City will pave Garrison Ave.; is considering use of asphalt. Address The Mayor.

Fla., Jacksonville.—Duval county will grade marsh causeway on Duval Rd. (Fernandina Rd.) from south side of marsh to Nassau River; bids received until July 7; will also grade and curb and pave Main St. from city limits to 16th St. with vitrified brick and Panama Park Rd. from Phoenix Park to Whitaker Ave. with vitrified brick; bids received until July 21; Gail L. Barnard, County Engineer, Room 9, Courthouse. (See "Machinery Wanted.")

Fla., Key West.—City will grade, curb and pave certain streets with either wood blocks, vitrified brick, bitulithic, asphalt blocks or asphalt macadam; about 67,557 square yards pavement and 18,285 linear feet stone curb; James Nisbet Hazlehurst, engineer, Candler Bldg., Atlanta, Ga.; Wm. R. Porter, chairman Board of Public Works; bonds recently noted. (See "Machinery Wanted.")

Fla., Marianna.—Jackson county will vote on \$300,000 bond issue for road construction. Address County Commissioners.

Fla., Tampa.—City of Tampa will pave W. Tenth Ave. from Grand Central Ave. to West Tampa line at Green St., and West Tampa will continue paving from Green to Main St.; W. J. Houlihan, chairman street committee of Tampa.

Ga., Albany.—City has \$25,000 available for street paving recently noted; material not decided; R. J. Edgerly, City Engineer.

Ga., Americus.—City will construct 50,000 square yards paving; bids received until July 10; bond issue recently noted; J. B. Ansley, City Engineer. (See "Machinery Wanted.")

Ga., Columbus.—City awarded contract at about \$40,000 to M. V. Barlow of Columbus to construct 24,000 square yards vitrified brick paving on Second Ave.

Ga., Sylva.—Screven county awarded contract to Perkins Bros., Newington, Ga., to construct road to be link in Great Southern Highway leading to Savannah, Ga.

Ky., Louisville.—Board of Public Works awarded following contracts for street paving: American Standard Asphalt Co. of Louisville, Edenside Ave., 1400 feet; Barber Asphalt Paving Co., Philadelphia, Pa., Herp Ave., 1250 feet; Louisville Asphalt Co., Louisville, Hill St., one block; total cost about \$32,000.

La., Plaquemine.—Iberville parish will construct two miles of gravel road from parish bridge to Cut-off Rd. Address Police Jury.

La., Shreveport.—City will construct 15,313 yards brick paving, 50,713 yards wood block,

53,123 yards sheet asphalt, 60,088 yards asphaltic concrete, 49,320 yards bitulithic and 10,461 yards concrete paving; bids received until July 20; estimated cost \$600,000; city has issued \$250,000 of bonds, remainder to be paid by property owners; L. H. Baker, Secretary-Treasurer. (See "Machinery Wanted.")

La., Winnboro.—Franklin Parish Police Jury appropriated \$5000 for construction of model roads leading from Winnboro towards various points in parish; additional appropriation will probably be received from State government funds.

Md., Baltimore.—State Roads Commission, Union Trust Bldg., will receive bids until July 10 for construction of 5 miles of road in Anne Arundel county, 6 miles in Calvert county, 5.29 miles in Carroll county and 3.53 miles in Baltimore county; stone surfacing in Anne Arundel and Calvert counties, stone macadam in Carroll county, and pitch macadam in Baltimore county. (See "Machinery Wanted.")

Md., Baltimore.—William M. Elder, 220 St. Paul St., Baltimore, is lowest bidder at \$1.08 for paving Lanvale St. from Charles St. to Greenmount Ave. with sheet asphalt on cobblestone base; B. T. Fendall, City Engineer. (Call for bids lately noted.)

Md., Catonsville.—Highways Commission of Baltimore County, Towson, Md., awarded contract to Thomas R. Martin & Sons, Woodlawn, Md., to grade Newberry Ave., Catonsville, distance of 2200 feet.

Miss., Hattiesburg.—Commercial Club will construct one mile of road.

Miss., Aberdeen.—A. C. Lowe, supervisor, Monroe county, states that \$300,000 is available for road construction; survey not completed; materials not decided; L. G. Smith, engineer, Tupelo, Miss. (First supervisors' district recently noted to vote July 1 on \$100,000 bond issue for road construction.)

Mo., Elsberry.—Construction of eight miles macadam road contemplated; Curtis Hill, State Highway Engineer, Columbus, Mo., has made estimates and plans; grading and construction contracts will be let. Address J. B. Ellis, president Elsberry Commercial Club. (See "Machinery Wanted.")

N. C., Charlotte.—Township Committee ordered placing of asphalt binder on Pineville Rd. for three miles to end of township line, where county will continue constructing three additional miles. Address Mecklenburg County Commissioners.

N. C., Morehead.—Carteret Central Highway Co. will construct road from Tennessee line through North Carolina; sand-clay construction; cost \$7000; W. H. Campen, engineer in charge; no bids; work under local supervision. (Recently noted.)

Okla., Fort Sill.—Mayfield Shaw, Lawton, Okla., has contract at \$12,147 to construct roads in Section A.

Tenn., Nashville.—City's plans for paving include five streets, about three-quarters mile each; contract (recently noted) awarded to Sam Rogers & Son, Nashville, at 11½ cents for sidewalks and 30 cents for curbing; W. W. Southgate, City Engineer, in charge.

Tex., Gonzalez.—Commissioners' Precinct No. 1 of Gonzales county voted \$150,000 bond issue for road construction; Precinct No. 3 defeated \$60,000 bond issue for road work. Address County Commissioners. (Recently mentioned.)

Tex., Lockhart.—Caldwell county will construct 26 miles of macadam roads; contract will soon be awarded. Address County Commissioners.

Tex., Port Arthur.—City will vote July 18 on \$80,000 bond issue for street paving. Address The Mayor.

Tex., Fort Worth.—City will pave Elizabeth St. and Kentucky Ave. in front of Lot 5, Block 7, Boaz Summit Addition; paving material to be bitulithic, vitrified brick, asphalt or macadam; bids received until July 8; F. J. Von Zuben, acting City Engineer; J. H. Maddox, Commissioner Streets and Public Property. (See "Machinery Wanted.")

Tex., Groveton.—Trinity county voted \$40,000 bond issue for road construction; C. J. Hinson, County Judge. (Recently noted.)

Tex., Rosenberg.—Rosenberg district of Fort Bend county voted \$75,000 bond issue for road construction. Address District Commissioners.

Tex., Waco.—McLennan county defeated \$600,000 bond issue for road construction. Address County Commissioners. (Recently mentioned.)

Tex., Wichita Falls.—T. B. Noble, Mayor, states that no action has been taken by city to order election to vote on street-improvement bonds. (Recently incorrectly noted to vote July 22 on issuance of \$32,500 bonds for street improvements.)

Va., Buena Vista.—City will construct one

mile of macadam road; 16 feet wide; bids invited; J. L. Knight, chairman street committee. (See "Machinery Wanted.")

Va., Charlottesville.—Pantops Orchard Co., Samuel B. Woods, president, will construct roads in connection with developing orchard property. (See "Land Developments.")

Va., Jonesville.—Lee County Supervisors will construct about 180 miles of county highway; bids received until August 9; P. St. J. Wilson, State Highway Commissioner, Richmond, Va. (See "Machinery Wanted.")

Va., Norfolk.—Public Improvement Committee approved following proposed improvements: Pollard St., Fifth ward, cost \$2845; curbing and guttering on Fairfax Ave. west of the Hague, Pembroke Ave. from Colley Ave. to Dundaff St., Dundaff St. from Olney Rd. to Pembroke Ave., and south end of Manteo St., total cost \$9694; curbing and guttering on Graydon Ave. between Moran and Colonial, also on 18th St. between Granby St. and Armistead Ave., cost of latter to be \$1800.00; Improvement of eastern extension of Lovitt Ave.; curbing and guttering 20th St. between Jewelllyn and Colonial Aves.; paving Chestnut St. in Fourth ward with old material; paving Brown Ave. on north side of Bramble Park; W. T. Brooke, City Engineer.

SEWER CONSTRUCTION

Ala., Mobile.—Board of Public Works awarded contract to G. A. Chamblin at \$3564.70 to construct covered wooden storm sewer in Stickney's Hollow from Dauphin St. south; sewer will be 6x6 feet and 1245 feet long; will require 109,000 feet B. M. of pecky cypress lumber. (See "Machinery Wanted.")

Ala., Montgomery.—City awarded contract for construction of sanitary sewer on Sayre St. from Jeff Davis to Elliott St.; Allen R. Gilchrist, City Engineer.

Ark., Conway.—City is considering construction of sewer system estimated to cost \$35,000. Address The Mayor.

Ga., Americus.—City will construct 12 miles 8 to 18-inch sewers; bids received until July 10; J. B. Ansley, City Engineer; bond issue previously noted. (See "Machinery Wanted.")

Ga., Augusta.—City will construct extension to 14th St. sewer from present terminal to point beyond river protection work; bids opened 5 P. M. July 3; Nisbet Wingfield, City Engineer.

Ga., Thomaston.—City will construct sewer system; bids received until August 1; J. B. McCrary Co., 1311 Empire Bldg., Atlanta, Ga., engineer; bond issue of \$50,000 (recently noted) voted for sewerage and water-works. (See "Machinery Wanted.")

Ky., Winchester.—City will construct sewage-clarification tank and sludge drying bed; bids received until July 7; J. H. Hughes, Mayor; Charles E. Collins, consulting engineer, Philadelphia, Pa. (See "Machinery Wanted.")

La., New Orleans.—Sewerage and Water Board has approved plans for proposed Napoleon Ave. drainage system and will advertise for construction proposals; contract to provide for all material for digging and lining of canal, etc. (Further facts recently mentioned.)

La., Shreveport.—City will construct Line Ave. and Duck Lake storm sewers; plans, etc., on file in engineer's office; bids invited July 11; L. H. Baker, secretary-treasurer. (See "Machinery Wanted.")

Md., Baltimore.—M. M. Elkan Company, Macon, Ga., is lowest bidder at \$505,000 for construction of storm-water drains in bed of Jones' Falls from point 100 feet south of Baltimore St. to Center St.; work will require 28,000 cubic yards of earth excavation, 900 cubic yards of rock excavation, 40,000 cubic yards of concrete masonry, 75 cubic feet brick masonry, 4,000,000 pounds of reinforcing steel, 12,000 square yards granolithic resurfacing, 140,000 feet of piles, 2000 feet foundation lumber, 50 tons cast-iron pipe, 900 linear feet vitrified sewer pipe and 40 tons structural steel. (Call for bids lately noted.)

N. C., Charlotte.—City will construct sewers and drains on various streets; bids opened July 5; A. H. Wearn, City Clerk and Treasurer.

N. C., Red Springs.—City awarded contracts for construction of sewers recently noted; plans by Gilbert C. White, Durham, N. C. (See "Water Works.")

Tenn., Memphis.—City will construct 1650 linear feet 8-inch sewer pipe on N. Watkins St. and 70 linear feet 8x14-foot culvert in Calhoun Ave. and S. 2d St.; bids received until July 4; E. H. Crump, Mayor. (See "Machinery Wanted.")

Tex., Port Arthur.—City will vote July 18 on \$75,000 bond issue for drainage. Address The Mayor.

Va., Lawrenceville.—City will vote August 1 on \$50,000 bond issue for construction of sewer system, water-works and electric-light plant; D. S. Hicks, Jr., Mayor.

TELEPHONE SYSTEMS

Ark., Prescott.—J. R. Hampton, H. C. Couch and J. H. Meek, Fordyce, Ark., purchased telephone exchange from Southwest Arkansas Telephone Co. and will improve.

Fla., Sorrento.—Lake County Telephone Co. has been organized.

Ky., Pikesville.—Sandy Valley Telephone Co. incorporated with \$10,000 capital stock by W. E. Johnston, R. M. Deskins and John W. Kerr.

N. C., Trenton.—Jones Telephone Co. incorporated with \$25,000 capital stock by F. Brock, H. G. Monk and others.

S. C., Gaston.—Farmers' Mutual Telephone Co., W. B. Tallaw, president, will operate telephone line; present length, 12 miles; contracts let.

Va., Arlington.—Government awarded contract to Arthur Cowell, 723 15th St. N. W., Washington, at \$68,885 to erect two-story building to contain offices, operating-room and storage space for three telegraph towers. (Further facts lately mentioned.)

TEXTILE MILLS

Md., Franklinton.—Ramie Products.—American Ramie Co., New Hartford, Conn., is reported as to establish plant.

Mo., St. Louis.—Neta.—Company organized with \$50,000 capital stock to establish plant for manufacturing fish nets; leased three floors at 419 N. 2d St. from Charles W. Martin & Co.

N. C., Concord.—Damask.—Brander Cotton Mills Corporation does not plan enlargements in connection with capital increase lately mentioned.

S. C., Greer.—Cotton Goods.—Greers Manufacturing Co. awarded contract to Gallivan Building Co., Greenville, S. C., to erect additional building for enlargement, for which Lockwood, Greene & Co., 93 Federal St., Boston, Mass., are engineers; will increase from about 10,000 to 25,000 spindles and accompanying machinery. (Recently reported as to expend \$350,000.)

S. C., Whitmire.—Print Cloth.—Glenn-Lowery Manufacturing Co. will install electrical drive in place of present steam-power; has contracted with Southern Power Co. (main offices at Charlotte, N. C.) for 1500 electrical horse-power; operates 35,000 ring spindles, 75 broad looms, 125 narrow looms, etc.

W. Va., Terra Alta.—Woolen Cloth.—Terra Alta Woolen Mills will rebuild plant reported burned at loss of \$75,000.

WATER-WORKS

Ark., Hamburg.—City purchased water-works of W. E. Kittrell & Sons for \$4000; will improve. Address The Mayor.

Ark., Mena.—Tonkawa Construction Co., Kansas City, Mo., is lowest bidder at \$9575.84 to construct water-works; separate contracts to be awarded for furnishing cast-iron pipe, hydrants and valves; Winters & Dove, engineers, 810 First National Bank Bldg., Fort Smith, Ark.; Joseph Thompson, chairman Board of Improvement. (Recently mentioned.)

Fla., Tampa.—City will construct 12-inch sewer on Twigg St. to replace present 8-inch main; Frederick T. Warren, City Engineer.

Ga., Americus.—City will construct reinforced concrete reservoir 60 feet in diameter, 11 feet deep; bids received until July 17; J. B. Ansley, City Engineer; bond issue of \$105,000 noted in April for water-works, sewer system and paving. (See "Machinery Wanted.")

Ga., Thomaston.—City will construct water-works; bids received until August 1; J. B. McCrary Co., engineer, 1311 Empire Bldg., Atlanta, Ga.; Claude Worrill, Mayor; bond issue of \$50,000 recently noted voted to construct water-works and sewers. (See "Machinery Wanted.")

Miss., Biloxi.—City voted \$70,000 bond issue for improvement and extension of water-works; E. Glennan, Mayor. (Further facts recently noted.)

Mo., Milan.—City will receive bids until July 8 for construction of water-works, including building of earth dam, 25,000 cubic yards; furnishing and laying cast-iron pipe, furnishing and setting fire hydrants, etc.; John W. Bingham, Mayor. (Recently mentioned.)

N. C., Red Springs.—City awarded water-works and sewerage contracts as follows: Construction to Robertson Construction Co.,

Charlotte, N. C.; cast-iron pipe to General Fire Extinguisher Co., Charlotte; tower and tank, R. D. Cole Manufacturing Co., Newnan, Ga.; hydrants and valves, Columbian Iron Works, Chattanooga, Tenn.; boilers, James S. Scofield Sons Company, Macon, Ga.; pumps, Buffalo Steam Pump Co., Buffalo, N. Y.; terra-cotta pipe, Pomona Terra-Cotta Co., Pomona, N. C.; total amount of contracts \$40,000; Gilbert C. White, engineer, Durham, N. C. (Previously noted.)

Okla., Bartlesville.—E. T. Archer & Co., consulting engineers, Beals Bldg., Kansas City, Mo., are preparing plans for water-works; estimated cost \$250,000.

Okla., Wynoka.—City will receive bids until about July 15 for material for water-works and electric-light plant; will erect brick and concrete power-houses; standpipe; oil-combustion engines; estimated cost \$24,000; William Haviland, Alva, Okla., is engineer; W. H. Olmstead, Mayor. (Recently mentioned.)

Tex., Chillicothe.—City will construct water-works; \$15,000 bond issue voted; bids opened July 3; W. O. Scott, City Secretary.

Tex., Fort Worth.—City Commissioners awarded contract to Pittsburg (Pa.) Filter Manufacturing Co. at \$69,983 to construct 5,000,000-gallon filtration plant; T. J. Powell, Water Commissioner. (Call for bids lately noted.)

Tex., Port Lavaca.—City Commissioners granted franchise to C. J. & J. K. Spittal (owners of Port Lavaca electric-power plant) to operate water-works.

Tex., Port Lavaca.—City Commissioners granted franchise to W. E. Shell & Co to construct water-works. (Recently mentioned.)

Va., Lawrenceville.—City will vote August 1 on \$50,000 bond issue for construction of water-works, sewer system and electric-light plant; D. S. Hicks, Jr., Mayor.

WOODWORKING PLANTS

Ky., Hickman.—Pulleys, Boat Oars, etc.—Anchor Block Mills considering establishment of branch plant.

Ky., Newport.—Carriages.—Columbus Carriage Works, Columbus, O., acquired old plant of Melbourne Buggy Co.; will remodel and enlarge.

Mo., St. Louis.—Sashes, Doors, etc.—Huttig Sash & Door Co., A. J. Siegel, general manager, purchased William G. Frye Manufacturing Co. and will operate plant partially burned; Huttig company will also rebuild plant burned at loss of about \$200,000. (Recently mentioned.)

N. C., Bolivia.—Shingles.—Waccamaw Shingle Co., Whiteville, N. C., will erect shingle mill with capacity of 60,000 shingles; remove equipment from Whiteville; purchased 29,000,000 feet cypress timber on line of new railroad building into Southport, N. C.

N. C., Lincolnton.—Hardwood Handles.—Lincoln Handle Co., McCoy Moretz, president, purchased equipment for factory to manufacture handles; plow handles a specialty; daily capacity 3000 to 4000; will erect 30x60-foot ordinary construction building; no building contract; recently noted. (See "Machinery Wanted.")

N. C., Winston-Salem.—Coffins.—Turner-White Coffin Co. of North Wilkesboro, N. C., leased Coleman factory building with 12,400 square feet floor space; will use as finishing, storage and shipping point; no change to be made in North Wilkesboro plant.

Okla., Muskogee.—Spokes, etc.—Sequoiah Land & Lumber Co., K. D. Blackwell, treasurer, contemplates installing machinery (within next six to nine months) for manufacture of spokes, felloes and other wagon timbers. (See "Lumber Manufacturing.")

S. C., Sumter.—Buggies.—W. W. and S. K. Rowland will erect buggy and carriage factory. Address, care of Sumter Chamber of Commerce.

BURNED

Ark., Clarksville.—R. D. Dunlap's barn and dairy; loss \$5000 to \$6000.

Ala., Cullman.—J. M. Bright's stables and Graves Hotel; P. B. Arnold's store; J. I. Armstrong's residences, etc.; total loss, \$25,000.

Ark., Harrisburg.—Harrisburg Roller Mill Co.'s plant; loss about \$20,000.

Ark., Argenta.—Gulf Compress Co.'s plant; loss reported as \$200,000 to \$250,000.

Fla., Lakeland.—Christian Phosphate Mining Co.'s dry bin, railroad elevator and 15 smaller buildings; estimated loss \$100,000.

Ga., Augusta.—Augusta Veneer Co.'s plant; estimated loss \$65,000.

La., Alden Bridge.—Whited & Wheelers'

sawmill; owned by Frost-Johnson Lumber Co., Shreveport, La.; loss \$35,000 to \$40,000.

Md., Parkville.—Frank C. Kilenstein's store and postoffice, barn, residence and warehouse; Charles Deckert's residence; loss \$10,000.

Md., Salisbury.—Salisbury Ice Co.'s plant, loss \$20,000; John Tomlinson & Co.'s dwelling, etc., loss \$5000.

Md., Spring Gap.—C. W. Platt's sawmill.

Miss., Purvis.—A. F. Moore's residence.

Miss., Vicksburg.—B. E. Noble's residence.

N. C., Franklinton.—B. F. Bullock's buildings.

Okla., Hunter.—Ralph Bolgh's store and garage; John F. Moses' store; loss \$10,000.

Okla., Medford.—Medford Mill & Elevator Co.'s building, loss \$50,000; J. F. Thomson Lumber Co.'s building, loss \$15,000; Brown Mercantile Co.'s building, loss \$15,000; Boston store, loss \$20,000; Roff & Brown's store, loss \$30,000; J. C. Binger's building, loss \$12,000; Wilson Drug Co.'s store, loss \$3500; Grant County Drug Co.'s store, loss \$3000; Owl Drug Store, loss \$7500; Medford Star's plant, loss \$3000; Medford Patriot's plant, loss \$3000; Weller & Simons' building, loss \$4000; J. Natelson's store, loss \$9000; McCracken Building, loss \$4500; Estes Furniture & Undertaking Co.'s building, loss \$10,000; Pioneer Telephone Co.'s exchange, loss \$5000; J. S. Harper's building, loss \$12,000; R. A. Hutchison's jewelry store, loss \$3300; Reed Building, loss \$3500; W. R. Spicknell's building, loss \$5000.

Okla., Norman.—J. R. Holland's store; loss \$22,000.

Okla., Norman.—J. R. Holland's store; loss \$22,000.

Okla., Oklahoma City.—Southwestern Showcase Co.'s plant at 21 N. McKinley Ave.; loss \$12,000 to \$20,000.

Okla., Oklahoma City.—Southwestern Showcase Co.'s plant; loss \$12,000.

Okla., Purcell.—Ferguson Hotel, owned by T. T. Forester; loss on building \$5000.

S. C., Calhoun.—Southern Railway's depot; D. W. Lum, chief engineer maintenance of way and structures, Washington; loss several thousand dollars.

S. C., Greenville.—E. F. Bates' garage; loss \$10,000.

S. C., Orangeburg.—Zion Church, occupied by Mount Pisgah Baptist Sunday-school. Address The Pastor, Mt. Pisgah Baptist Church.

S. C., Timmonsville.—Dr. D. H. Traxler's store on Main St., occupied by Pace Bros.

Tenn., Murfreesboro.—Central Hotel.

Tenn., Waverly.—Evans & Stinnett's saw and stave mill; loss \$8000 to \$10,000.

Tex., Brownwood.—Brownwood Ice & Fuel Co.'s plant; loss \$50,000.

Tex., Buck.—Livingston Lumber Co.'s planing mill; estimated loss \$30,000.

Tex., Dallas.—A. W. Kaufman's residence; loss \$3000.

Tex., Fort Worth.—A. Strathdee's residence at 1117 S. Jennings Ave. and John A. Marshall's residence at 1115 S. Jennings Ave.; loss \$5000.

Tex., Jasper.—Bohlson & Zellers' sawmill; estimated loss \$20,000.

Tex., Miles.—A. M. Brown's residence; loss \$5000.

Tex., Port Arthur.—Three warehouses, over 1000 feet of wharf owned by Texas Company, Houston, Tex., etc.; total loss about \$300,000.

Tex., San Antonio.—C. E. Williams Brick Co.'s plant.

Tex., San Antonio.—Charles Winkler's store; loss \$4000.

Tex., Sherman.—John Helm's residence, loss \$4000; T. Joe Cockrell's residence, loss \$7500; residence occupied by Lucinda Brown and Lula Epps, loss \$7500.

Va., Mascot.—W. R. Burch, Jr.'s, store.

Va., Richmond.—Barn on Bucklands Stock Farm, owned by E. A. Saunders of Richmond; loss \$4000.

Va., Suffolk.—Suffolk Knitting Mills; loss reported as \$57,000.

W. Va., Terra Alta.—Terra Alta Woolen Mills; loss reported, \$75,000.

COLLAPSED

Mo., St. Louis.—G. T. Burdeau's building, loss \$25,000 to \$30,000; Mrs. Flora Slupsky's building, loss \$6000 to \$7000.

DAMAGED BY STORM

Ala., Marion.—George Richardson's residence; loss \$5000.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Fla., Jacksonville.—Mrs. Alice Martindale has plans by W. B. Talley, Jacksonville, to erect apartment-house; four six-room apartments; frame and brick construction; gas and electric lighting; cement-block pavement; cost \$8900. (Recently noted.)

Ky., Louisville.—J. C. Clifford will erect apartment-house; two stories; brick; cost \$7500.

Mo., Kansas City.—W. J. Welsh will erect apartment-house; brick; cost \$5000.

Mo., St. Louis.—A. Craig will erect two tenement-houses; two stories; cost \$8000.

Mo., St. Louis.—Fred E. A. Darr will erect double tenement-house; two stories; cost \$5000.

ASSOCIATION AND FRATERNAL

Fla., Tampa.—Benevolent Protective Order of Elks plans to erect lodge building; five stories and roof garden; brick, with stone trimmings, or reinforced concrete; 12-foot veranda on two sides; cost \$65,000 to \$75,000.

Miss., Gloster.—Woodmen of the World Sanitarium and Pleasure Resort, O. P. McPherson, president and promoter, will establish sanitarium, pleasure and health resort at Woodmen Springs; plans in part provide for erection of 100-room hotel, etc.

N. C., Raleigh.—Young Men's Christian Association, Cary J. Hunter, president, engaged Shattuck & Hussey, Chicago, Ill., to prepare plans for building to cost about \$45,000. (Recently noted.)

Okla., Muskogee.—United Order of Commercial Travelers will erect building; 48x80 feet; two stories and basement; swimming pool in basement; gymnasium.

S. C., Charleston.—Young Men's Christian Association, Leland Moore, chairman of building committee, will receive bids until noon August 7 at 210 King St. to erect building; cost about \$150,000; certified check for \$2500; plans by Shattuck & Hussey, Chicago, Ill., on deposit of \$25. (Previously noted.)

Tex., Houston.—Young Women's Christian Association, W. A. Wilson, John T. Scott and W. A. Vinson, trustees, plans to erect association home to cost about \$200,000.

Tex., Leesville.—Independent Order of Odd Fellows will erect lodge building; two stories; 30x50 feet; construction begun.

Tex., Mineral Wells.—Benevolent and Protective Order of Elks has not definitely determined upon plans to erect \$25,000 lodge building; E. C. Baker, secretary. (Recently noted.)

BANK AND OFFICE

Ark., Pine Bluff.—Arkansas Abstract & Guaranty Co. incorporated with \$10,000 capital stock; contemplates erection of building; W. E. Elkins, Sheridan, Ark., is president.

D. C., Washington.—Lincoln National Bank, Richard A. Walker, president, 7th and D Sts. N. W., will alter and improve bank building.

Fla., Miami.—J. K. Dorn will open bids July 9 to erect office building; 25x64 feet; three stories; reinforced concrete walls; ordinary construction; gas and electric lighting; cost \$8500; plans by George L. Pfeiffer, Lemon City, Fla. (See "Machinery Wanted.")

Ga., Atlanta.—Charles A. and Oscar Davies will erect store and office building; 12 or 14 stories; first floor for stores and upper floors for offices; cost \$175,000.

Ga., McDonough.—First National Bank will remodel building on public square for bank building.

Ga., McDonough.—Farmers and Merchants' Bank will erect bank building.

La., Alexandria.—Charles M. Waters and others will not at present erect office building recently reported.

Md., Towson.—A. A. Piper will erect office building on Washington Ave.

Miss., Brandon.—William B. Brandon will erect office and store building. (See "Stores.")

N. C., Greensboro.—C. W. Banner is having plans prepared by F. A. Weston, Greensboro, for six-story office building.

N. C., Raleigh.—Raleigh Banking & Trust Co. will receive bids until July 15 to erect bank building; 80x120 feet; three stories; reinforced concrete; white marble veneer; white marble columns; plans by P. Thornton Marye, Atlanta, Ga. (Recently noted.)

Tenn., Kelso.—People's Bank of Kelso, J. P. Cowley, president, will erect bank building.

Tenn., Waverly.—J. A. and L. W. Slayden will erect store and office building. (See "Stores.")

Tex., Cuero.—First National Bank, temporary offices in Rathbone Bldg., will erect bank building to replace structure recently burned.

Tex., Salado.—W. R. Berry will expend \$5000 to erect bank building; 40x30 feet; stone and glass front; plans and construction by owner. (Recently noted.)

Va., Norfolk.—Mutual Building Association, Plume and Atlantic Sts., will erect building on Tazewell St. between Granby and Boush Sts.

Va., Richmond.—First National Bank Building Corporation is reported to receive bids about July 15 to erect office building on site of former Chamber of Commerce; 29 stories; granite, terra-cotta and iron; fireproof; foundation to extend 30 feet below sidewalk; total estimated cost, \$1,000,000; plans by Clinton & Russell and Alfred C. Bosson, both of New York. (Previously more fully detailed.)

CHURCHES

Ark., Cabot.—Church of Nazarene will erect edifice; E. J. Patton, chairman of building committee.

Ga., Macon.—African Methodist Church will erect edifice to be known as Turner Tabernacle; brick veneer; cost \$15,000; O. Beale, J. T. Belvin, Solomon Wynn and others, committee.

Ga., Savannah.—Trinity Methodist Church, Rev. J. B. Johnstone, pastor, will improve edifice; W. R. L. Roberts, chairman of committee.

Ky., Louisville.—Union Presbyterian Church has plans by Loomis & Hartman, Louisville, for improvements to edifice at 2d and Avery Sts.; cost \$10,000.

La., Monroe.—Baptist Church will erect edifice; pressed brick and Indiana brownstone; cost \$32,000. Address The Pastor, Baptist Church.

La., St. Benedict.—Benedictine Monks will erect mortuary chapel on cemetery grounds; will contain 90 vaults.

Ga., Valdosta.—First Methodist Church will expend about \$12,000 for improvements to edifice, including erection of 50-foot addition, making entire structure two stories; Sunday-school rooms, enlarge auditorium and remodel same to seat 1500.

Md., Baltimore.—St. Margaret's Episcopal Church, Rev. J. H. Boosey, rector, corner Kate Ave. and Reisterstown Rd., will expend \$7000 to erect 27x16-foot addition to edifice, two-story 27x62-foot addition to parish-house and 16x14-foot addition to bowling alleys; one story; brick and wood construction; steam or hot-water heat; preliminary plans (recently noted) prepared by John Freund, Jr., 210 E. Lexington St., Baltimore.

N. C., Henderson.—Methodist congregation will erect edifice to replace burned structure. Address The Pastor, Methodist Church.

N. C., Mount Olive.—Baptist Church, L. A. Bird, chairman building committee, has plans by J. M. McMichael, 501 Trust Bldg., Charlotte, N. C., for edifice; brick; ordinary construction; stone trimmings; slate roof; metal trimmings; steam heat; cost \$12,000.

N. C., Rocky Mount.—Baptist Church, Rev. I. N. Mercer, chairman building committee, has plans by J. M. McMichael, 501 Trust Bldg., Charlotte, N. C., for edifice; ordinary construction; brick; slate roof; metal trimmings; mechanical heating and ventilating; cost \$27,500.

N. C., Winston-Salem.—Southside Moravian Church will expend \$10,000 to erect edifice; 95x51 feet; brick; plans prepared by W. C. Northrup, Winston-Salem. (Recently noted.)

Tenn., Memphis.—Union Church has plans by F. Boskey, Memphis, for edifice; 24x52 feet; heating and lighting not determined; bids opened July 5; further information may be had of W. R. Flenka, 284 Union Ave. (Recently noted.)

Tex., Lovelady.—C. B. Moore will receive bids to erect brick or concrete-block church.

Tex., Snyder.—Methodist Church, Rev. J. W. Hunt, chairman of committee, will receive bids to erect edifice; cost \$20,000 to \$25,000.

Va., Suffolk.—Baptist congregation is reported to erect edifice. Address The Pastor, Baptist Church.

W. Va., Fairmont.—First Presbyterian Church will erect edifice; J. Walter Barnes, chairman of committee.

CITY AND COUNTY

Ala., Anniston.—Jail.—Calhoun County Commissioners will make improvements to jail; W. H. Oates, State prison inspector, Montgomery, Ala.

Ala., Decatur.—City Hall.—H. A. Skeggs, Mayor, and City Council will receive bids until July 11 to erect city hall; 85x85 feet; mill construction; steam heat; cost \$20,000; certified check for \$500; plans and specifications at office of Mayor or of R. H. Hunt, architect, Chattanooga, Tenn.; E. W. Collier, City Clerk. (Recently noted.)

Ala., Mobile.—Fire Station.—Bids received until July 5 to erect fire station at Ann St. and Spring Hill Ave.; two stories; pressed-brick front; stone trimmings; 27 feet 2 inches by 52 feet 7 inches; dormitory on second floor with floor space 25x40 feet; cost about \$4000; Fred Kearns, Building Inspector.

Ala., Russellville.—Jail.—Commissioners' Court of Franklin County will make improvements to county jail; cost \$6000; S. J. Petree, Judge of Probate Court.

Ark., Carlisle.—Jail.—Town Council will erect jail. Address The Mayor.

Ky., Catlettsburg.—Jail.—Ed S. Hughes, clerk of County Court, will receive bids until 4 P. M. July 10 to erect addition to Boyd county jail; certified check for 3 per cent. amount of bid; plans and specifications and blank form of proposals at office of clerk as above.

La., Ville Platte.—Jail.—Evangeline parish opens bids July 6 to erect courthouse and jail. (See "Courthouses.")

Md., Baltimore.—Fire Station.—City has plans by Alfred Cookman Leach, 823 Charles St., Baltimore, for engine-house at Light and Montgomery Sts.; 28x100 feet; fireproof and ordinary construction; details not determined. (Previously noted.)

Md., Baltimore.—Stable.—Board of Awards, James H. Preston, president, will receive bids at office of City Register, City Hall, until 11 A. M. July 12 to erect stable on Greenmount Ave. near North Ave.; certified check for \$500, payable to Mayor and City Council; plans and specifications at office of Edward D. Preston, Inspector of Buildings. (Previously noted.)

Tenn., East Lake—Zoo.—Park Commissioners are having plans prepared for zoological building; 100x35 feet; metal roof; steam heating. Address Commissioners.

Tex., Paint Rock.—Jail.—Concho county voted \$15,000 bond issue to erect jail. Address County Commissioners.

Va., Norfolk.—Fire Station.—City will expend \$3000 to erect fire station; 30x50 feet; ordinary construction; hot-water heat; plans by B. F. Mitchell, Norfolk; bids opened July 3; recent bids rejected. (Lately mentioned.)

COURTHOUSES

Fla., Arcadia.—De Soto County Commissioners accepted plans by Bonfoey & Elliott, Tampa, Fla., for courthouse; brick; terra-cotta and marble; four entrances through ionic columns; bronze candelabras on either side of broad marble steps; 190x75 feet; base of structure from lawn to window-sills of first floor of marble; superstructure of brick with terra-cotta trimmings around windows; terra-cotta awning supported by columns; metal dome with slate roof; ever-flowing drinking fountain; fireproof construction; corridor floors laid in ceramic mosaic tile; cost about \$100,000. (Previously noted to receive competitive plans.)

Fla., Inverness.—Citrus County Commissioners will receive bids after July 3 and contemplate awarding contract July 18 to erect courthouse to cost \$50,000; press brick; stone columns; tile roof; copper dome; marble floors; clock and bell; plans by J. R. MacEachron, Candler Bldg., Atlanta, Ga.; further information of architect or Walter J. Warnock, Inverness.

La., Ville Platte.—Evangeline parish opens bids July 6 to erect courthouse and jail buildings; former to be pressed brick, with terra-cotta trimmings and Bedford stone columns; interior to be fireproof, with enameled brick corridors, tiled floors and ornamental plaster walls; tiled roof; modern plumbing with marble stall; cost about \$50,000; latter to be two stories; brick; fireproof construction; capacity for 48 prisoners; cost about \$20,000; plans by Emile Weil, New Orleans, La. (Recently noted.)

Tex., Aspermont.—Stonewall County Commissioners will expend \$50,000 to erect courthouse; plans by E. G. Withers, Stamford, Tex. (Recently noted to receive bids until July 5.)

DWELLINGS

Ala., Ensley.—Ensley Land Co. will, it is reported, erect 50 houses in addition to those now under construction; also reported to erect two business buildings for Bessemer Grocery Co.

Ala., Mobile.—Downey & Denham are preparing plans for residence at Flo Claire; two stories; frame.

Ala., Mobile.—John T. Cochrane has plans by Downey & Denham, Mobile, for residence. (Recently noted.)

Ala., Mobile.—Nathan Simon is having plans prepared by Downey & Denham, Mobile, for residence; two stories; frame.

Ala., Mobile.—Edward White will erect residence; two stories.

Ala., Mobile.—T. O. Young has plans by Downey & Denham, Mobile, for bungalow.

Ala., Mobile.—W. F. Downey of Downey & Denham will erect bungalow; tile roof.

Ala., Mobile.—Thomas J. Burns will erect residence; construction begun.

Ark., Hot Springs.—Department of Interior, Washington, D. C. Proposals in duplicate received until 2 P. M. July 18 to erect brick dwelling on south side of Hot Springs Mountain Reservation, Hot Springs, in accordance with drawings and specifications to be had on application. Bidders invited to attend. Set of plans and specifications in office of superintendent of Hot Springs Reservation. Applicants for plans and specifications to submit certified check for \$25, payable to Secretary of Interior; usual rights reserved; Carmel A. Thompson, Assistant Secretary.

D. C., Washington.—Kennedy Bros., 1331 H St. N. W., will erect 20 dwellings on Quebec St., between Georgia Ave. and Warder St.; nine rooms.

D. C., Washington.—F. T. Sanner and Wm. A. Hill, both of 1333 G St. N. W., will erect residence on New Hampshire Ave.; four stories and English basement; stone front.

Fla., Jacksonville.—A. M. Dixon will erect five dwellings; one story; frame.

Fla., Jacksonville.—D. J. Thomas will erect residence; two stories; frame.

Fla., Tampa.—J. W. Lykes will open bids July 10 to erect bungalow; 46x46 feet; ordinary construction; fireplaces; electric lighting; cost \$5000; plans by Nolan & Avery, 216 Curry Bldg., Tampa. Address architects. (Recently noted.)

Ga., Atlanta.—William Hartsock will erect residence; cost \$3250.

Ga., Atlanta.—W. S. Hancock will erect residence.

Ga., Atlanta.—Rose Realty Co. will erect residence; cost \$5000.

Ga., Atlanta.—J. H. Jennings will erect two dwellings; cost \$3000.

Ga., Atlanta.—L. D. Strauss will erect residence; cost \$4500.

Ga., Atlanta.—G. S. Prior will erect residence; cost \$13,500.

Ga., Atlanta.—L. H. Beck will erect residence; cost \$4500.

Ga., Toccoa.—F. Marion Thomason, Gould Bldg., Atlanta, Ga., will erect 40 bungalows (recently noted), observatory and dining hall for summer resort; frame; gasoline lighting; cost \$20,000; date of opening bids not set. (See "Land Developments.")

Ky., Winchester.—W. R. Spahr will erect residence.

La., Elton.—Dr. S. A. Pennington will erect residence.

La., New Orleans.—Charles Duchamp will erect residence; single; two stories; cost about \$4000.

Md., Baltimore.—B. W. Moores, 3814 Park Heights Ave., is having plans prepared by Henry J. Tinley, 314 N. Charles St., Baltimore, for residence on Elsinor Ave.; two and a half stories; cost about \$6000.

Md., Baltimore.—Walter Westphal, 1700 N. Bond St., has plans by Samuel Bersterman, 26 N. Potomac St., Baltimore, for 69 dwellings in 2000 block Benedict St., 500 block Brunswick St. and both sides of Delaney St.; two stories; iron-spot brick; 13x45 feet; cement cellars, yards and sidewalks; cost about \$75,000.

Md., Cumberland.—Wm. H. Black will erect residence; pressed brick and brownstone.

Mo., Kansas City.—Creek & Kenwood will erect four dwellings; frame; cost \$6700.

Mo., Kansas City.—A. J. King Realty Co. will erect three brick-veneer dwellings and one frame dwelling; cost \$13,000.

Mo., Kansas City.—L. M. Graves will erect three residences; frame construction; cost \$3000.

Mo., Kansas City.—I. B. Marlatt will erect residence; brick veneer; cost \$5000.

Mo., Kansas City.—Theodore Winningham will erect residence and garage; stone; cost \$18,000.

Mo., St. Louis.—McPress Brick Co. will erect two dwellings; two stories; cost \$8000.

S. C., Florence.—James F. Muldrow will erect residence; brick construction.

S. C., Florence.—T. Baker Haynesworth will erect residence; two stories.

N. C., Greensboro.—Berhard M. Cone is having plans prepared by F. A. Weston, Greensboro, for residence.

S. C., Summerville.—G. B. Miles will rebuild dwelling; plans not made. (Recently reported burned.)

N. C., Scotland Neck.—Baptist congregation will erect parsonage; cost about \$4000; N. B. Josey, G. C. Weeks and James L. Josey, building committee.

Tenn., Franklin.—Thomas B. Johnson will erect residence.

Tenn., Franklin.—R. A. Bailey will erect residence.

Tex., Calvert.—S. M. Gibson will erect residence.

Tex., Calvert.—F. W. Oderbotz will erect residence.

Tex., Cuero.—T. Simon & Son will erect bungalow.

Tex., Cuero.—Presbyterian Church, Rev. J. L. Green, pastor, has plans by Hull & Praeger, Victoria, Tex., for manse; two stories; eight rooms; wood; cost \$2600; day labor. (Recently noted.)

Tex., Dallas.—J. R. McFarland will erect residence; cost \$3320.

Tex., Gonzales.—W. H. Mathews will erect residence to cost \$15,000 to \$20,000.

Tex., Houston.—O. L. Forsgard will erect residence; nine rooms; cost \$5000.

Tex., Timpson.—F. R. Bussey will erect residence; construction begun.

Va., Charlottesville.—Pantops Orchard Co., Samuel B. Woods, president, will erect several dwellings. (See "Land Developments.")

Va., Richmond.—Dr. Ben Bowles will expend \$3500 for addition and improvements to residence.

Va., Richmond.—Thomas Atkinson will erect store and dwelling. (See "Stores.")

Va., Lynchburg.—Mrs. H. C. Healy will erect residence; frame; shingle roof; cost \$4500.

Va., Lynchburg.—John T. Watkins will erect residence; frame; slate roof; cost \$6000.

GOVERNMENT AND STATE

D. C., Washington.—Nurses' Home.—Secretary of Interior opened bids to erect nurses' home for Freedman's Hospital; Melton Construction Co. of Washington is lowest bidder at \$41,858. (Recently noted.)

D. C., Washington.—Postoffice.—Treasury Department, James Knox Taylor, supervising architect, Washington, will, it is reported, soon advertise for bids to erect post-office building.

Fla., Fort Pickens.—Captain's Quarters.—Constructing Quartermaster at Fort Barrancas, Fla., will receive bids in triplicate until 11 A. M. July 27 to erect captain's quarters, including plumbing, electric wiring and fixtures; plans, specifications and proposal blanks on deposit of \$5.

Md., Catonsville.—Hospital.—Maryland Hospital for the Insane is having plans prepared by Baldwin & Pennington, Professional Bldg., Baltimore, Md., for building; three stories and basement; brick.

N. C., Gastonia.—Public Building.—Treasury Department, James Knox Taylor, supervising architect, Washington, D. C., will, it is reported, soon advertise for bids to erect proposed public building.

Va., Suffolk.—Federal Building.—Treasury Department, James Knox Taylor, supervising architect, Washington, D. C., opened bids to erect Federal building; J. H. Bolson, Hampton, Va., is lowest bidder at \$66,740 for limestone and \$67,240 for sandstone. (Recently noted.)

HOTELS

Ala., Columbiana.—Columbiana Sanatorium, Land & Improvement Co. will erect sanatorium and hotel. (See "Miscellaneous Structures.")

Ark., Argenta.—Pulaski Realty Co. has plans by George B. Mann, Little Rock, Ark., for hotel and business building. (See "Stores.")

Ark., Imboden.—J. L. Polk will open bids September 1 to erect hotel; 40x90 feet; brick; cost \$10,000 to \$15,000; plans by D. Crouch. (See "Machinery Wanted.")

Fla., Miami.—Biscayne Bay Front Realty Co. incorporated with \$76,000; James R. Reid, president, Augusta, Ga.; Claude E. Sawyer, vice-president, Aiken, S. C.; Horace M. Cassels, secretary-treasurer, Ellenton, S. C.; will erect hotels, railroad with terminal at Lemon City, etc.

Fla., St. Augustine.—Buckingham Smith Benevolent Association trustees awarded contract to S. Clark Edminster, St. Augustine, to erect addition to Buckingham Hotel to form complete new front; 20 rooms.

Ga., Atlanta.—Brinton B. Davis, architect, Louisville, Ky., wires Manufacturers Record that plans are in progress for hotel for Realty Trust Co.; 450 guestrooms, baths, buffet, ballroom, roof garden, parlors, private dining-rooms, etc.; 14 stories; steel, stone, brick and terra-cotta; cost \$1,150,000; will be leased by Jerome B. Pound of Chattanooga, Tenn.

Miss., Gloster.—Woodmen of the World Sanitarium and Pleasure Resort, O. P. McPherson, president and promoter, plans to erect 100-room hotel, etc. (See "Association and Fraternal.")

N. C., Thomasville.—C. C. Whitehead, representing Standard Home Co. of Birmingham, Ala., is reported as interested in erection of \$300,000 hotel and sanitarium on S. C. Thomas property.

S. C., Rock Hill.—Carolina Hotel Co. accepted plans by Hook & Rogers, Charlotte, N. C., for improvements and remodeling hotel, including pressed brick and granite front, steam-heating plant, rearrangement of lobby and installation of marble wainscot and tile floor.

Tex., Houston.—Jesse H. Jones will begin construction of Rice Hotel about October 1; plans call for 12-story structure with three wings; 500 rooms; cost about \$2,500,000. (Previously noted.)

Tex., Houston.—Jesse H. Jones is reported to have plans prepared for new Rice Hotel; 12 stories; 500 rooms; separate buildings after second floor with air courts between; cost complete, \$2,500,000, including site, etc.; work to begin by October 1. (Previously noted.)

Tex., Kingsville.—Fred Harvey, Inc., main office, Kansas City, Mo., is reported to erect hotel and restaurant.

Tex., San Antonio.—St. Anthony Hotel Co. reported to purchase Terrell property for \$75,000 and to enlarge present hotel building.

Va., Lynchburg.—Chamber of Commerce, O. B. Barker, chairman of committee, is having plans prepared by V. T. Ritter, Huntington, W. Va., for proposed hotel to replace Arlington Hotel; five stories; 130x142 feet; fireproof; elevators; cost about \$250,000. (Recently noted.)

W. Va., Wheeling.—McClure Hotel is having plans prepared for 100-room addition to hotel.

MISCELLANEOUS

Ala., Eufaula.—Livery Stable.—H. C. Holleman will erect 20-foot addition to livery stable and two 22x80-foot store buildings; T. H. Adams of Birmingham, Ala., is in charge of work; materials purchased.

Ala., Columbiana.—Sanatorium.—Columbiana Sanatorium, Land & Improvement Co., Joel Chandler, president, will erect hotel building and sanatorium.

Ark., Jonesboro.—Restaurant.—St. Louis & San Francisco Railroad, F. G. Jonah, chief engineer of construction, St. Louis, Mo., and St. Louis & Southwestern Railway, W. T. Eaton, chief engineer, Tyler, Tex., will, it is reported, rebuild Harvey restaurant recently burned.

Ark., Pine Bluff.—Sanatorium.—O. W. Clarke will erect sanatorium; cost \$20,000.

Ga., Fair.—Fair Building.—Georgia State Fair Association will expend about \$4000 for enlargement and improvement of fair buildings, including erection of 50-foot extension to machinery hall, men's and women's rest-rooms, 75-stall cattle shed, etc.

Ga., Jackson.—Stables.—Leach & Co. will erect stable; one story; brick; 65x210 feet.

Ga., Toccoa.—Observatory, etc.—F. Marion Thomason, Gould Bldg., Atlanta, Ga., will erect observatory, dining-hall, etc. (See "Land Developments.")

Ky., Louisville.—Garage.—H. D. Bowman has plans by J. J. Gaffney, Louisville, for addition to garage; brick; cost \$5000.

Ky., Louisville.—Hospital.—Natareth Literary and Benevolent Society will erect power building and culinary department at Saints Mary and Elizabeth Hospital; cost \$14,500.

Md., Baltimore.—Parish-house, etc.—St. Margaret's Episcopal Church, Rev. J. H. Boosey, rector, corner Kate Ave. and Reis-

terstown Rd., is having preliminary plans prepared for addition to parish-house, bowling alleys, etc. (See "Churches.")

Mo., Kansas City.—Garage.—Theodore Winningham will erect dwelling and garage. (See "Dwellings.")

N. C., Thomasville.—Orphanage.—Thomasville Baptist Orphanage trustees will erect addition to central dining hall 30x50 feet, additional rooms to central building for teaching work, thus removing folding partitions and converting same into chapel; West Chowan Association is reported to erect dormitory for larger boys of orphanage; cost \$6000.

N. C., Thomasville.—Sanitorium.—C. C. Whitehead, representing Standard Home Co. of Birmingham, Ala., is reported as interested in erection of \$300,000 sanitarium and hotel on C. S. Thomas property. (See "Hotels.")

S. C., Greenville.—Garage.—Eugene F. Bates will rebuild garage reported burned; brick and fireproof construction.

Tex., Dallas.—Exhibit Booth.—B. F. Avery & Son will erect exhibit booth; concrete construction; cost \$3500.

Tex., Dallas.—Exhibit Booth.—Mitchell-Lewis Motor Co. will erect exhibit booth; concrete construction; cost \$3500.

Va., Farmville.—Fair Buildings.—Farmville Fair Association will erect main building surrounded by other structures.

Va., Norfolk.—Nurses' Home.—St. Vincent's Hospital will erect home for nurses to cost \$25,000.

RAILWAY STATIONS

Ark., England.—St. Louis Southwestern Railway, C. D. Purdon, chief engineer, Tyler, Tex., will erect railway station; 30x140 feet; pressed brick; cost \$12,000.

Fla., Tampa.—Ocala Northern Railroad Co., S. P. Hollinsake, superintendent, Ocala, will not erect passenger station, as recently noted.

Ga., McDonough.—Southern Railway, D. W. Lum, chief engineer maintenance of way and structures, Washington, D. C., will, it is reported, erect passenger and freight station; cost about \$6000.

Ky., Covington.—Louisville & Nashville Railway, W. H. Courtenay, chief engineer, Louisville, Ky., and Chesapeake & Ohio Railway, F. I. Uebell, chief engineer, Richmond, Va., plan to erect depot.

Md., Port Deposit.—Pennsylvania Railroad, Alexander C. Shand, chief engineer, Philadelphia, Pa., is having plans prepared for combined freight and passenger station. (Recently noted.)

Mo., St. Louis.—Manufacturers' Railway Co., G. F. Moore, president and general manager, St. Louis, Mo., will erect freight station and warehouse; brick exterior; eight stories; 60x30 feet; elevators and system of chutes for handling freight; maximum daily capacity of terminal tracks, 12 cars; terminals constructed to accommodate five roads.

S. C., Calhoun.—Southern Railway, D. W. Lum, chief engineer, M. W. and structures, Washington, D. C., is reported to erect station to replace structure reported burned at loss of several thousand dollars.

S. C., Orangeburg.—Southern Railway, D. W. Lum, chief engineer maintenance of way and structures, Washington, D. C., will, it is reported, make improvements to passenger station.

SCHOOLS

Ala., Athens.—Athens College will erect proposed Florence Brown Memorial Hall; cost \$40,000.

Ala., Decatur.—City will vote July 22 on \$20,000 bond issue—\$10,000 to retire outstanding bonds and remainder for school improvements.

Ala., Livingston.—Alabama Normal College, W. S. Nichols, treasurer, will erect brick dormitory; three stories; ordinary construction; steam heat; gas lighting; cost \$15,000 to \$17,500. (Recently noted.)

Ala., Montevallo.—City will erect school building; steam or furnace heat; cost \$5000 to \$6000. Address proposals to P. J. Kroell. (Recently noted to vote July 11 on bond issue.)

Ala., Opelika.—Lee county will erect high school building; brick construction; cost \$10,000; city to furnish site and erect building; State to provide \$3000 annual maintenance; Henry J. Willingham, County Superintendent of Education.

Ark., Carlisle.—School Board will have plans prepared by L. M. Weathers of Weathers-Foley Company, Memphis, Tenn., for school; brick construction. (Recently noted.)

Ark., Texarkana.—District school directors,

A. B. Little, secretary, will receive bids until 4 P. M. July 15 to erect brick high-school building; plans and specifications at office of Witt, Siebert & Co., architects, Texarkana, or may be had on deposit of \$25.

Ky., Lexington.—Board of Education or Garber & Woodward, architects, 906 Andrews Bldg., Cincinnati, O., will receive bids until noon July 8 (change of date) for erection of school; price of labor and materials stated separately, and bidders may submit proposals for any or all of following items of construction: Excavation, masonry and concrete work, brick work and terra-cotta, carpenter work and lumber, sheet-metal work and roofing, plastering, painting and glazing, plumbing and gasfitting, iron and steel work, heating and ventilation, electrical work, marble and slate work, hardware and fire-escape; bids also received comprising all foregoing items and tranches in single proposals; bids to contain name of every person interested therein and accompanied by guarantee of some disinterested person to 10 per cent. amount of bid; bids to be marked "Bids for Brick Work," or as case may be; John H. Smirall, clerk of board. (Recently noted.)

La., New Orleans.—City will readvertise for bids to erect school at Poplar, Pine, Low-erline and Jeanette Sts.; has \$56,000 appropriation. Address The Mayor.

La., New Orleans.—Tulane University Board is reported to conduct architectural competition with architects of entire country, under code of American Institute of Architecture, to obtain plans and designs for Sophie Newcomb College building to be erected adjoining Tulane University within next few years; erection of main group contemplated, it is reported, expenditure of \$500,000.

La., Rayne.—School Board of Arcadia parish, J. D. Hunter, chairman of committee, will expend \$17,000 to erect school building; ordinary construction; steam heat; plans by W. S. Honold, Abbeville, La. (Recently noted to receive bids until July 13.)

La., Lake Charles.—School Board plans to erect central and ward school buildings.

La., Slidell.—City Council will open bids at noon July 20 to erect three-story brick school building for School Board of St. Tammany's parish; bids must be sealed and addressed to Hon. Paul Gardere, Mayor, and must be accompanied by certified check for \$500; proposals from general contractors with and without heating and plumbing will be entertained, and proposals from sub-contractors for heating and plumbing alone will be considered; sub-proposals for heating and plumbing must be accompanied by certified check for \$300; plans and specifications may be secured on application at Mayor's office, Slidell, La., or from architect, Stevens & Nelson Company, 1109 Hennen Bldg., New Orleans, La.; usual rights reserved.

Md., Baltimore.—Otto G. Simonson, American Bldg., Baltimore, prepared plans for addition to public school at Forest Park; 11 rooms; 65x130 feet; semi-fireproof construction; steam heat; cost \$60,000; will open bids about August 15.

Miss., Oxford.—City will erect school building; cost \$4500; plans not determined; bids opened July 6; W. L. Smith, clerk of board. (Recently noted.)

N. C., Kinston.—North Carolina State Commission will receive plans and specifications from architects for school for feeble-minded; \$60,000 available; buildings will include two dormitories; cost \$18,000 each; superintendent's house to cost \$10,000; boiler-house, laundry and kitchen combined; cost \$4000 to \$7000; details not determined. Address Dr. Ira M. Hardy, secretary, Washington, N. C. (See "Machinery Wanted.")

N. C., Winston-Salem.—City has plans by Willard C. Northrup, Winston-Salem, for 12-room 22x32-foot brick school building. (Recently noted.)

Okla., Edmond.—State Board of Affairs will expend \$5000 to \$6000 for improvements to Central Normal School.

Tenn., Alexandria.—Board of directors, O. P. Barry, chairman building committee, will expend \$7000 to erect school building; two stories; 80x90 feet; mill construction; hot-air heat; acetylene lighting; concrete sidewalks. (See "Machinery Wanted.")

Tenn., Memphis.—Shelby county plans to increase tax rate to erect additional buildings at Shelby County Industrial and Training School; J. P. Young, Judge.

Tex., Ferris.—School Board will receive bids until 2 P. M. July 20 to erect school; two stories and basement; brick; certified check for \$1000; plans and specifications at office of Lang & Witchell, architects, 622-23-24 Wilson Bldg., Dallas, Tex., or J. A. Smith, secretary of board at Ferris.

Tex., Sanger.—Bids received until July 5 by H. D. Greene, secretary of Sanger Independent School District, to erect addition to school; two stories; two rooms; brick; and for heating entire building with steam; plans at office of secretary at Sanger and at office of Waller & Field, architects, Fort Worth, Tex.

Tex., Huntsville.—State will erect residence for H. F. Estill, president of Sam Houston Normal Institute.

Tex., Melvin.—Town voted \$7000 bond issue to erect school; stone or brick. Address Town Clerk.

Tex., Sanger.—Waller & Field, architects, 209½ W. 8th St., Fort Worth, Tex., will receive bids until July 10 to erect brick school.

Tex., Sherman.—School Board is having plans prepared by Will Gill, Sherman, for proposed school; 10 rooms.

Tex., Whiteland.—Town voted \$7000 bond issue to erect brick or stone school. Address Town Clerk.

Va., Abingdon.—Martha Washington College will erect \$25,000 building.

Va., Norfolk.—City has plans by Lee & Diehl, Norfolk, for negro school building; 16 rooms; brick; cost \$32,500. Address School Board. (Recently noted.)

Va., Salem.—School Board of Salem District has plans by G. R. Ragan, Salem, for school building; 10 rooms; ordinary construction; fan furnace system of heating; electric lighting; cost \$15,000; date of opening bids not set; J. S. Persinger, clerk. (Recently noted to vote July 18 on \$17,000 bond issue.)

W. Va., Kimball.—Board of Education of Brown's Creek District, McDowell county, will receive bids addressed to F. C. Cook, secretary, Welch, W. Va., until noon July 15 to erect four-room brick school; certified check for one-third amount of bid; plans and specifications at office of W. B. Smith, architect, Huntington, W. Va.; F. C. Cook, Welch, and Bluefield Telegraph, Bluefield, W. Va.

STORES

Ala., Athens.—George Long will erect store building; construction begun.

Ala., Athens.—L. C. Hightower will erect two store buildings; two stories.

Ala., Birmingham.—R. E. Tyler will erect business building; two stories; brick veneer; day labor; cost \$3500.

Ala., Eufaula.—H. C. Holleman will erect two store buildings; 22x50 feet; T. H. Adams of Birmingham, Ala., is in charge of work. (See "Miscellaneous Structures.")

Ala., Ensley.—Ensley Land Co. is reported to erect two business buildings for Bessemer Grocery Co.; one story; brick; 50x100 feet. (See "Dwellings.")

Ala., Gadsden.—North Alabama Grocery Co. will erect building; two stories and basement; cost about \$50,000.

Ala., Union Springs.—Thomas Edwards, president of First National Bank, will erect brick stores to replace present frame structures on North Prairie St.

Ark., Little Rock.—John Baldrige is having plans prepared for store building; two stories; 31x78 feet; brick; stoves; electric lighting; cost \$4000; construction by owner. (Recently noted.)

Ark., Argenta.—Tulaski Realty Co. has plans by George R. Mann, Little Rock, Ark., for business building and hotel; 50x140 feet; ordinary construction; natural-gas heat; cost \$25,000; date of opening bids not set. (Recently noted.)

Fla., Tampa.—L. J. Jones is having plans prepared by Jay & Lerner, Tampa, for business building; three stories and basement; 30x178 feet; brick; cost \$30,000.

Ga., Atlanta.—Smith Higgins, 254 Peters St., has plans by W. J. Cleckler, 568 Whitehall St., Atlanta, for store building recently noted burned; three stories; 64x150 feet; ordinary construction; heating not decided; electric lighting; cost \$25,000 to \$30,000; day labor. (See "Machinery Wanted.")

Ga., Atlanta.—Smith & Higgins will erect four-story building to replace burned structure. (Recently reported burned.)

Ga., Atlanta.—Little & Green will erect store building; brick; cost \$5000.

Ga., Atlanta.—Charles A. and Oscar Davies will erect store and office building. (See "Bank and Office.")

Ga., Atlanta.—Tuggle-Gordon Company will erect store building to replace burned structure. (Recently reported burned.)

Ky., Louisville.—J. E. H. Galbraith will erect business building; two stories; brick; cost \$5000.

La., New Orleans.—Mrs. August Bohne will expend \$8000 for improvements to building.

Miss., Brandon.—William B. Brandon will rebuild store and office building; 25x74 feet; four stores on ground floor; ordinary construction; plans not fully determined. (Recently noted burned.)

N. C., Henderson.—G. W. Wortham will erect store to replace burned structure.

S. C., Lancaster.—Ernest Moore will erect store building; brick construction.

S. C., Orangeburg.—Adden Bros. will erect business building.

Tenn., Chattanooga.—J. S. Clay, 108 Vine St., is preparing plans for two store buildings on E. 9th St.; two stories; brick construction; stone trimmings; metal roof; gas and electric lighting; cost \$3000.

Tenn., Chattanooga.—E. H. Morgan, 5th and Pine Sts., will receive bids at once to erect store building; brick; composition roof; stone trimmings; cost \$7000.

Tenn., Knoxville.—A. E. Felknor will erect business building.

Tenn., Waverly.—J. A. and L. W. Slayden will erect store and office building, Church St. and Public Square; front of plate glass and iron columns; three stories; lower floors for stores; upper floors for offices, and furnished in hardwood; cost \$12,000; construction begun.

Tex., Dallas.—J. C. Conway will receive bids July 12 to erect three-story brick store building.

Tex., Mexia.—Anderson Furniture Co. will erect store building; two stories; brick.

Va., Richmond.—Thomas Atkinson will erect store and dwelling; two stories; brick; cost \$6000.

THEATERS

D. C., Washington.—Edson Bradley, Dupont Circle South, will erect theater in rear of residence; site 166x95 feet; to seat over 500; cost at least \$50,000.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

La., New Orleans.—Edward Marx, Pass Christian, Miss., awarded contract to Louis Prechter, 922 Adams St., New Orleans, to erect apartment-house; 50x100 feet; three stories; brick; slow-burning construction; tile roof; reinforced concrete foundations; pressed-brick exterior; tile bathrooms; marble work; hardwood trimmings and doors; hot-air heat; automatic heaters; cost \$20,000; plans by Keenan & Weiss, 516 Hibernia Bank Bldg., New Orleans. (Recently noted.)

Mo., Kansas City.—Joseph V. Straub, 2320 Harrison St., awarded contract to George W. Goodlander to erect apartment and store building; 50x90 feet; brick; tar roof; cost \$12,000; plans by J. P. Schmidt. (Recently noted.)

Tenn., Chattanooga.—Dr. Cooper Holtzclaw awarded contract to A. F. Hahn to erect apartment-house; three stories; brick; gas and electric lighting; steam heat; composition roof; cost \$18,000.

Va., Richmond.—Jake Levy awarded contract to erect three store and apartment buildings; cost \$15,000.

W. Va., Martinsburg.—E. F. Millard awarded contract to C. D. Burns, Martinsburg, to erect apartment-house and store building. (See "Stores.")

ASSOCIATION AND FRATERNAL

Ark., Fort Smith.—Lewis Friedman awarded contract to erect building to be occupied by Fraternal Order of Eagles; 50x125 feet.

BANK AND OFFICE

D. C., Washington.—Perpetual Building Association, 506 11th St. N. W., awarded contract to Burgess & Parsons, 612 13th St. N. W., Washington, to erect building at 11th and E Sts. N. W.; 30x75 feet; hot-water heat; electric lighting; concrete vaults; lights for sidewalks; stone and light brick; cost \$30,000; plans by Spelden & Spelden, 1403 New York Ave. N. W., Washington.

D. C., Washington.—John F. and Robert C. Wilkins awarded contract to Wells Bros. & Co. of New York to erect office building at 15th and H Sts. N. W.; cost about \$180,000; plans by J. H. De Sibour, Hibbs Bldg., Washington. (Recently more fully detailed.)

Md., Frostburg.—First National Bank awarded contract for carpenter work to W. C. Preston for erection of addition and improvements to bank building; to Fuller Bros., Frostburg, for masonry, and to Vermont Marble Co., Proctor, Vt., for marble construction; structure will have banking floor space of 1200 square feet; front of Vermont marble with 12 Ionic columns, caps and

Fla., West Palm Beach.—Karl Kettler, Jr., will remodel and improve Bijou Theater; will construct stage 12x20 feet, etc.

Mo., St. Louis.—Columbia Feed Co. will erect warehouse; one story; cost \$15,000.

Tenn., Lebanon.—E. E. Adams is having plans prepared by R. K. Turbeville, Nashville, Tenn., for theater; main auditorium to seat 500 and gallery to seat 200.

Tenn., Memphis.—Boyles Bros. are reported as interested in erection of theater on Main St. to cost about \$50,000.

Tenn., Waverly.—J. A. and L. W. Slayden will erect warehouse and theater building. (See "Warehouses.")

Tex., Austin.—Endress & Walsh, Austin, have not prepared plans for theater at Riverside Amusement Park as recently reported.

WAREHOUSES

Ala., Ashford.—W. H. Ashford and others will expend \$3500 to erect warehouse; 68x194 feet; two stories; brick; will install elevator to cost \$185; plans and construction by Mr. Herrington. (Recently noted.)

Mo., Kansas City.—Koch Butcher Supply Co. will erect factory and warehouse building; brick; cost \$10,000.

Tenn., Memphis.—Memphis Warehouse Co. writes to Manufacturers Record confirming report it will erect 45 warehouses of reinforced concrete construction, as mentioned lately. (See "Cotton Compresses and Gins.")

Tenn., Waverly.—J. A. and L. W. Slayden will erect warehouse on Church St.; two stories; concrete; 65x110 feet; ratproof; lower floor for warehouse; upper floor for theater; cost \$10,000; construction begun.

Va., Suffolk.—Bain Peanut Co. will erect storage warehouse to replace recently burned structure; construction begun.

bases; interior finish of mahogany; floor of hardwood, marble and tile; plans by Holmboe & Lafferty, Clarksburg, W. Va.

N. C., Statesville.—First National Bank awarded contract to remodel second and third floors of bank building; construction begun. (Recently noted.)

N. C., Wilson.—Karl Moore and Henry Best awarded contract to W. B. Wilkins, Wilson, to erect office building; two stories; pressed brick.

Tenn., Slayden.—Bank of Slayden awarded contract to J. M. Rhodes, Dickson, Tenn., to erect proposed bank building; 20x50 feet; fireproof construction; stoves; cost \$2000; plans by J. H. McFall, Slayden.

CHURCHES

Fla., Pensacola.—German Lutheran church awarded contract to L. J. Welch, Pensacola, to erect edifice; exterior walls faced with gray pressed brick; terra-cotta and stone trimmings; Tudor-Gothic style; two towers in front and three art windows; parochial school interior to accommodate 15 pupils; main auditorium 91x72 feet; vaulted ceiling 30 feet high; cost \$15,000.

Md., Annapolis Junction.—Junior Republic awarded contract to John Cowan, 106 W. Madison St., Baltimore, Md., to erect chapel; one story; plans by Bassell & Spinkler, Philadelphia, Pa.

Tex., Dallas.—First Presbyterian Church awarded contract to Alex. Watson Construction Co., Dallas, to erect proposed edifice; concrete foundation; copper-covered dome; cost \$135,000; construction begun; plans by C. D. Hill & Co., Dallas.

Tex., Hitchcock.—Union Protestant Church awarded contract to erect edifice. Address The Pastor, Union Protestant Church.

Tex., Rockdale.—Baptist church awarded contract to Richardson & Co., Mart, Tex., to remodel edifice; 30x90 feet; ordinary construction; cost of heating plant (contract not let) \$1000; cost of improvements \$8000; plans by Hubert & Co., Waco, Tex. (Recently noted.)

Tex., St. Paul.—Methodist congregation awarded contract to J. T. Simpson to erect edifice.

CITY AND COUNTY

Ark., Walnut Ridge.—Jail.—Lawrence county awarded contract at \$9685 to Webb & Peters of Pocahontas, Ark., to erect jail; pressed brick; 17-inch wall; concrete floors and ceilings; slate roof. (Recently noted.)

Ga., Dalton.—Fire Headquarters.—City awarded contract to Flint Hamilton, Dalton, to erect fire headquarters building; cost about \$5000.

COURTHOUSES

Tex., Andrews.—Andrews county awarded contract to F. M. Knight & Son, Andrews, to erect courthouse.

Va., Williamsburg.—James City county awarded contract at \$4542 to R. H. Richardson & Son, Hampton, Va., to rebuild courthouse; will use walls of old building.

DWELLINGS

Ala., Birmingham.—F. L. Whitmore awarded contract to Joy Construction Co., Birmingham, to erect residence; two stories; frame; cost \$3750.

Ala., Birmingham.—M. B. Nelson awarded contract to J. E. Allen, Birmingham, to erect residence; two stories; frame; cost \$5000.

Ala., Birmingham.—A. R. Harris awarded contract to P. Paldridge, Birmingham, to erect residence; two stories; brick veneer; cost \$3907.

Ala., Union Springs.—Thomas Edwards, president of First National Bank, awarded contract to erect residence.

D. C., Washington.—W. A. Dowd, 125 G St. N. W., awarded contract to Dowd Bros., 1325 G St. N. W., Washington, to erect residence at 1829 California Ave.; three stories; brick; cost \$35,000; plans by A. H. Beers, 1342 New York Ave. N. W., Washington.

D. C., Washington.—E. Reynek awarded contract to erect dwelling and store; cost \$3800. (See "Stores.")

D. C., Washington.—W. F. Peabody, 2419 18th St. N. W., awarded contract to Winfield Preston, 719 S St., Washington, to erect residence at 1503 Delafield Pl.; brick and stone; cost \$6500; plans by Rich & Fitz Simons, Oxford Bldg., Washington.

Fla., Tampa.—Bayshore Development Co. awarded contract to W. R. Page, Tampa, to erect proposed dwelling; 28x40 feet; brick and cement stucco; fireplaces; electric lighting; cost \$5000; plans by Nolan & Avery, 216 Curry Bldg., Tampa.

Ga., Macon.—J. C. Murphy awarded contract to Henry Pitts, Macon, to erect two two-story dwellings; seven rooms; cost \$3600. (Recently noted.)

Ga., Macon.—H. K. Burns awarded contract to erect residence; plans by Frank R. Happ, Macon.

Ga., Macon.—Wiley J. Barnes awarded contract to erect residence; plans by Frank R. Happ, Macon.

Ga., Macon.—Mrs. S. Welchselbaum awarded contract to erect double residence; plans by Frank R. Happ, Macon.

Md., Baltimore.—Samuel A. Thompson awarded contract to Provident Realty Corporation, Piedmont and Garrison Aves., Baltimore, to erect residence; two and a half stories; frame; steam heat; electric lights; cost \$6500 to \$7000.

Md., Baltimore.—John T. Donohue, 1908 Thames St., has plans by and awarded contract to Mason R. Stone, 2238 E. Hoffman St., Baltimore, to erect 84 dwellings on Robinson St. between Gough & Pratt Sts.; two stories; iron-spot brick; stone trimmings; 12x75 feet; cost \$84,000.

Md., Baltimore.—M. W. Jones awarded contract to Webb & White, Maryland Telephone Bldg., Baltimore, to erect residence; two and a half stories; frame and stucco; cost about \$5000; plans by Henry J. Tinley, 314 N. Charles St., Baltimore.

Md., Roland Park.—R. W. Smith awarded contract to Roland Park Co., 408 Roland Ave., Roland Park, to erect residence; two and a half stories; brick; slate roof; concrete foundation; cost about \$18,000; plans by Ellicott & Emmart, Union Trust Bldg., Baltimore, Md.

Mo., Kansas City.—George O. Bacon awarded contract to erect dwelling; cost \$5000. (Recently noted.)

Mo., St. Louis.—Juliette Hawley awarded contract to Giles Bros., St. Louis, to erect proposed dwelling; 30x41 feet; fireproof construction; hot-water heat; plans by E. F. Nolte, St. Louis.

N. C., Charlotte.—H. B. Lockwood awarded contract to R. N. Hunter Company, Charlotte, to erect bungalow; five rooms and bath; covered with shingles; cost \$3900; plans by Hunter & Gordon, Charlotte. (See "Machinery Wanted.")

N. C., Durham.—H. A. Foushee awarded contract to Salmon & Salmon, Durham, to erect residence; 10 rooms; ordinary construction; heating contract let separately; cost about \$15,000; plans by Linthicum & Rose, Durham.

N. C., Durham.—Mrs. A. H. Stokes awarded contract to Salmon & Salmon, Durham,

to erect residence; frame; steam heat; nine rooms; ordinary construction; cost \$10,000; plans by Linthicum & Rose, Durham.

N. C., Winston-Salem.—R. H. Latham awarded contract to Ange Construction Co., Winston-Salem, to erect proposed dwelling; two stories; 7 rooms; frame; electric lighting; cost \$3,000; plans by W. C. Northrup, Winston-Salem.

Tenn., Buntyn.—State Board of Affairs awarded contract to J. A. Finch to erect residence for president of West Tennessee Normal School. (See Contracts Awarded, "Schools.")

Tenn., Nashville.—C. R. Vanderford, 222 Third Ave. North, awarded contract to R. L. Taylor, 903 Lischey Ave., Nashville, to erect dwelling; 32x36 feet; 9 rooms; basement 7½ feet to joists; cement floors; hot-air heat; gas and electric lighting; asphalt slate shingles; cost \$4,000; plans by O. J. Billid, Nashville. (Recently noted.)

Tex., Houston.—J. G. Le Gros awarded contract to William A. Wilson Company, Houston, to erect residence.

W. Va., Triadelphia.—Mrs. Caroline Linton will expend \$5,000 to erect dwelling; 28x36 feet; mill construction; plans by A. L. Simms; contract awarded to Walter & Simms, Elm Grove, W. Va. (Recently noted at Wheeling, W. Va.)

W. Va., Martinsburg.—Charles Keedy awarded contract to erect dwelling and store. (See "Stores.")

GOVERNMENT AND STATE

Ga., Dublin.—Postoffice.—Treasury Department, James Knox Taylor, supervising architect, Washington, D. C., awarded contract at \$48,970 to Algernon Blair, Montgomery, Ala., to erect postoffice. (Previously noted.)

Tex., Wichita Falls.—Postoffice.—Treasury Department, James Knox Taylor, supervising architect, Washington, D. C., awarded contract at \$61,931 to Dieter & Wenzel Construction Co., Wichita, Kans., to erect postoffice. (Recently noted.)

Tex., Victoria.—Postoffice.—Treasury Department, James Knox Taylor, supervising architect, Washington, D. C., awarded contract at \$87,131 to Otto P. Kroger & Co., San Antonio, Tex. (recently noted as lowest bidders) to erect postoffice.

HOTELS

S. C., Mayesville.—W. N. McElveen awarded contract to T. B. Fort, Mayesville, to erect proposed hotel; brick construction.

Va., Richmond.—A. D. Atkinson will expend \$500,000 to erect addition to Hotel Richmond; 93x116 feet; total number of rooms 238, with 125 baths; 11 stories; iron clay fire flashed brick; Italian green marble; scagliola columns; main stairway of marble, with bronze trimmings; lobby 35x50 feet, with mezzanine; present lobby to be used as palm garden; four high-speed elevators (contracts not let); metal windows, mail chutes, roof garden; top story to contain assembly hall to seat 1,000; contract for interior decorations awarded to William Schefer, 489 Fifth Ave., New York; contracts for plumbing, electric lighting and refrigerating plants not let; plans by John Keegan Peebles, Norfolk, Va.; general contract (recently noted) awarded to E. W. Minter & Co., 115 Broadway, New York.

MISCELLANEOUS

Md., Baltimore.—Clubhouse.—Phoenix Club, 1535-9 Eutaw Pl., awarded contract to J. S. Busick, 2811 Raynor Ave., Baltimore, to erect addition to clubhouse; two stories; brick; 28x18 feet; slag roof; steam or hot-water heat; cost \$10,000; plans by Theodore Wells Pietsch, American Bldg., Baltimore. (Previously noted.)

Tex., Mexia.—Pavilion.—Joe Johnston Camp No. 94, Confederate Veterans, awarded contract to erect proposed pavilion; cost \$2,000; plans and construction by J. F. Denning, Mexia.

W. Va., Clarksburg.—Car Barn, etc.—Fairmont & Clarksburg Traction Co. awarded contract to Owego Bridge Co., Owego, N. Y., to erect car barn; 60x200 feet; concrete foundations; fireproof; workshop in connection; improvements to cost \$18,000.

W. Va., Wheeling.—Sanitarium.—Anti-Tuberculosis League of Ohio County awarded contract to erect sanitarium as follows: For erection of four buildings, to J. W. Beltz & Sons Company, Wheeling; sewerage system, to Springer & Stringer; water system and plumbing, to Wm. Hare's Sons, Wheeling; wells, to Grimes & Co. of Elm Grove, W. Va. (Recently noted.)

SCHOOLS

Ky., Bowling Green.—Board of Education awarded contract at \$339.50 to Frank L. Kister, Jr., Bowling Green, for improvements to State-street school, and at \$185 to D. B. Dearing, Bowling Green, for improvements to College-street school. (Recently noted.)

Md., Hagerstown.—Board of School Commissioners of Washington county awarded contract to erect annex to school; 12 rooms; brick; cost \$15,000. (Previously noted.)

Miss., Jackson.—City awarded contract at \$6986 to Leves & Kitchen Company, Chicago, Ill., for heating high-school building. (Recently noted.)

Mo., Clarence.—Clarence School Board awarded contract to Scott & Son, Memphis, Mo., to erect proposed \$25,000 school, and to Courtenay & Warwick, Memphis, Mo., for heating and plumbing; plans by O. A. Hoagland of Charleston, Ia.

N. C., Asheville.—County School Board awarded contract to J. G. Ramsey, Asheville, to enlarge Woodfin Hill school in District No. 8.

S. C., Hampton.—City awarded contract to W. H. Hite, Aiken, S. C., to erect school; two stories and basement; brick; metal roof; cost \$10,000; plans by G. Lloyd Preacher, Augusta, Ga. (Recently noted.)

N. C., Raleigh.—North Carolina Agricultural and Mechanical College awarded contract to W. B. Barrow, Raleigh, to erect dining-room building; 54x144 feet, with ell 51x32 feet; fireproof and ordinary construction; central heating plant; electric wiring only; dumbwaiter; cost \$31,506; plans by H. P. S. Keller; to Carr & Co. to erect \$30,000 concrete and brick animal husbandry building and mess hall, latter 120x140 feet, one story; to Hunt Bros. & Co., Greensboro, N. C., for heating both buildings. (Recently noted. See "Machinery Wanted.")

Tenn., Buntyn.—State Board of Affairs awarded contract at \$13,200 to J. A. Finch to erect residence for S. A. Mynders, president of West Tennessee Normal School; two stories; brick veneer; plans by B. C. Alsop, Memphis.

Tenn., Shawnee.—Lincoln Memorial University awarded contract to Mr. Miller of Middlesboro, Ky., to erect school building; brick; 48x160 feet; construction of foundation by G. T. Spencer, Shawnee.

Tex., Elctra.—City awarded contract to Charles L. Blakowski, Burkburnett, Tex., to erect proposed school building; cost \$10,625.

Tex., Houston.—Twenty-fifth School District, L. L. Pugh, county superintendent, awarded contract to erect schools at Sunset Heights and Little York; brick construction; cost about \$6,000 each; plans by Ellis Lane, Houston. (Recently noted.)

Tex., Spur.—Spur Independent School District awarded contract to Albert Westz, Spur, to erect school building; 11 rooms and auditorium; ordinary construction; steam heat; electric lighting; cost \$16,500; plans by Waller & Fields, Fort Worth, Tex. (Recently noted.)

Tex., Tahoka.—City awarded contract to Caster & Cox, Amarillo, Tex., to erect school building. (Recently noted.)

Tex., Weir.—City awarded contract to Hope Bros., Taylor, Tex., to erect school building; 33x62 feet; ordinary construction; cost \$7,000; plans by C. H. Page & Bros., Austin, Tex. (Recently noted.)

Va., Danville.—City awarded general contract to Harwood & Moss, Newport News, Va., to erect school building; 150x61 feet; two stories and basement; low-pressure steam and ventilation; electric lighting; cost \$30,000; plans by Pettit & Cave, Danville; contract for heating (recently noted) awarded to Danville Plumbing & Heating Co. at \$5,978.11.

Va., Salem.—School Board of Central District awarded contract to Landon Sears and J. Sinclair Brown to erect school; four rooms; brick cased; cost \$6,000. (Recently noted.)

Va., Old Point Comfort, P. O. at Fort Monroe.—Old Point Comfort College will probably award contract at \$13,383 to R. H. Richardson & Son (lowest bidders), Hampton, Va., to erect gymnasium.

W. Va., Athens.—State Board of Control awarded contract to Charleston (W. Va.) Construction Co. to erect main building at Concord State Normal School. (Previously noted.)

STORES

Ala., Ashford.—J. S. Williams awarded contract to Herrington & Knight, Ashford, to erect proposed business building; 50x30 feet; three stories; brick; cost \$3,000; plans by W. H. Herrington, Ashford.

Ala., Birmingham.—James Toole awarded contract to S. Hugges' Bros., Birmingham, to erect business building; three stories; brick; cost \$13,500.

Ark., Cotton Plant.—Charles Meehan awarded contract to erect five stores; brick construction; fireproof; cost \$18,000.

D. C., Washington.—Lemuel W. Todd, 3222 Warder St. N. W., awarded contract to Brashears Bros. to erect building at 3909 Huntington St. N. W.; two stories; frame; cost \$8,000; plans by Walter C. Brashears, Langdon, Station K, Washington.

D. C., Washington.—Corcoran Fire Insurance Co., 604 11th St. N. W., and Henry A. Strong awarded contract to L. A. Lengley to repair buildings at 1101 F St. and 606 11th St. N. W.; cost \$7,550; plans by F. A. Kendall, Corcoran Bldg., Washington.

D. C., Washington.—E. Reynek awarded contract to G. & M. Gumenick, 7th and M Sts. N. W., Washington, to erect proposed store and dwelling; 21x49 feet; ordinary construction; hot-water heat; gas lighting; cement sidewalks; cost \$3,800; plans by S. R. Turner, 613 M St. N. W., Washington.

Fla., Jacksonville.—J. B. Bours will expend \$5,000 to erect store and apartment building; 3x65 feet; ordinary construction; plans by McClure & Holmes, Jacksonville; contract recently noted awarded to J. C. Halsema, Jacksonville.

Fla., St. Petersburg.—E. B. Rowland awarded contract to Eureka Stone Paving Co. to erect proposed business building.

Ga., Macon.—B. S. Walker, Jr., awarded contract to erect three stores; plans by Frank R. Happ, Macon.

Ga., Macon.—Dr. Hinkle awarded contract to erect department building; two stories; cost \$20,000 plans by P. E. Dennis, Macon.

Ga., Macon.—J. H. Napier awarded contract to erect store building; plans by Frank R. Happ, Macon.

Mo., Kansas City.—Joseph V. Straub, 2129 Harrison St., awarded contract to erect store and apartment building. (See "Stores.")

Mo., St. Louis.—Anderson Realty & Building Co. has plans by and awarded contract to G. Fridrich, 5001 Wells Ave., St. Louis, to erect store building; 25x109 feet; three stories; ordinary construction; steam heat; one freight elevator; cost \$12,000. (Recently noted.)

N. C., Charlotte.—Erbert Harty awarded contract to J. A. Solomon, Charlotte, to erect building to be occupied by Williams-Shelton Company; brick construction. (Previously noted.)

N. C., Charlotte.—C. H. Robinson Company awarded contract to R. N. Hunter Company, Charlotte, to erect additional story to business building; 50x30 feet; roof garden; can vas roofing.

N. C., Wadesboro.—W. J. McEndon awarded contract to Ingram & Brasington, Wadesboro, to remodel building occupied by Parsons Drug Co.; plate-glass window 12x15 feet; cost several thousand dollars.

N. C., Winston-Salem.—A. B. Gorrell & Son have plans by and awarded contract to Fogle Bros. Company, Winston-Salem, to erect store building recently noted; 44x30 feet; mill construction; cost \$10,000; to be occupied by Boyles Bros. Company; also erect four two-story and one two-story-and-basement stores; mill construction; cost \$30,000;

plans and construction by Fogle Bros. Company. (See "Machinery Wanted.")

N. C., Winston-Salem.—R. W. and P. A. Gorrell and Mrs. H. L. Riggs awarded contract to Fogle Bros., Winston-Salem, to erect six store buildings; two stories; red pressed brick; glass fronts.

N. C., Winston-Salem.—A. F. Sams awarded contract to Ange Construction Co., Winston-Salem, to erect proposed store building; two stories; brick; electric lighting; cost \$4,000.

Tex., Bastrop.—L. R. Erhard has plans by and awarded contract to J. R. Pfeiffer to remodel 25x80-foot store building; ordinary construction. (Recently noted.)

Tex., Kirbyville.—R. F. Bean awarded contract to Mr. Debnay, Kirbyville, to erect store building; two stories; brick.

Tex., Mineral Wells.—A. Howard awarded contract to J. T. Moore, Mineral Wells, to erect business building; stone construction; 5x100 feet; one story.

Tex., Waco.—E. W. Marshall awarded contract to P. Crawford, Waco, to erect business building for Hill Printing & Stationery Co.; two stories; pressed brick; 50x100 feet; cost \$16,000.

Va., Richmond.—Jake Levy awarded contract to erect three store and apartment buildings; cost \$15,000. (Recently noted.)

W. Va., Martinsburg.—Charles Keedy awarded contract to C. C. Kent, Martinsburg, to erect store and dwelling; 31½x77 feet; red brick; cost of heating, \$400; lighting, \$50; sidewalks, \$250; plans by S. A. Westenhauer, Martinsburg. (Recently noted.)

W. Va., Martinsburg.—E. F. Millard awarded contract to C. D. Burns, Martinsburg, to erect addition to business building; one part 21x68 feet, one and three stories; part two 24x45 feet, one and two stories; brick and metal; stores on ground floor; apartments above; steam heat; cost \$6,000; plans by C. C. Kent, Martinsburg. (Recently noted.)

WAREHOUSES

Ala., Dadeville.—Dadeville Union Warehouse & Wholesale Grocery Co., W. D. O'Brien, secretary, awarded contract to D. R. Knox, Dadeville, to erect cotton warehouse and wholesale grocery building; 85x200 feet; fireproof construction; cost \$6500. (Recently noted incorporated with \$10,000 capital stock.)

Ga., Augusta.—George R. Lombard awarded contract to Woodward Manufacturing Co. to erect warehouse; 50x210 feet; brick; metal roof; cost \$15,000; plans by G. Lloyd Preacher, Augusta. (Recently noted under "Stores.")

Ga., Macon.—Jacob Hirsch awarded contract to Shaw Bros., Macon, to erect warehouse; cost \$3500; plans by Frank R. Happ, Macon. (Previously noted.)

N. C., Durham.—Durham Tobacco Storage Co. awarded contract to erect warehouse to replace structure damaged by storm.

S. C., Greenville.—Piedmont Bonded Warehouse & Compress Co. awarded contract to erect warehouse and compress recently noted. (See "Cotton Compresses and Gins.")

Va., Portsmouth.—Seaboard Air Line Railway, W. L. Seddon, chief engineer, Portsmouth, awarded contract to Edward Overman, Portsmouth, to erect storeroom; four stories; frame; covered with metal; composition roof; cost \$6300.

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Mobile.—The New Orleans, Mobile & Chicago Railroad Co. gives notice that it will apply for franchise to lay tracks on certain parts of Royal St. W. F. Owen is vice-president and general manager at Mobile, Ala.

Ark., Waldron.—An officer of the Kansas City Southern Railroad writes that there is nothing in the press report that it contemplates building an extension from Waldron to Hot Springs, Ark.

D. C., Washington.—The East Washington Heights Traction Co. and the Washington & Marlboro Electric Railroad Co., it is reported, contemplate building a road from Washington to connect with the Washington & Chesapeake Beach line near Ritchie Station. Col. A. E. Randle, president of the United States Realty Co., Washington, D. C., is president of both railroad companies.

D. C., Washington.—The Baltimore & Washington Transit Co. has been granted a franchise by Takoma Park, Md., to lay tracks through the town. The company has for some time contemplated an extension to

Sandy Spring, 14 miles. Wm. A. Mellen of Washington is president.

D. C., Washington.—The Great Falls & Old Dominion Railway is reported surveying for an extension of about five miles at a cost of about \$100,000. John R. McLean of Washington is president.

Fla., Jacksonville.—J. C. Blanton, manager of the Jacksonville Terminal Co., says that the track improvements contemplate the building of about three miles of additional main line, rearrangement of approaches and the relaying of all main lines and switches with 80-pound standard rails, hard center and manganese frog and switch construction.

Fla., Ocala.—An officer of the Ocala Northern Railroad Co. says that it is extending its line from Fort McCoy to Palatka, Fla., 30 miles, laying 60-pound steel rails.

Ga., Fairburn.—The Fairburn & Atlanta Railway & Electric Co. is reported to have completed and put in operation its electric railway from Fairburn to College Park, 10 miles, connecting with the Georgia Railway & Electric Co.'s line. W. T. Roberts of Fairburn is president.

Ga., Milledgeville.—The Young Men's Busi-

ness League is reported working on a plan to secure the building of a railroad between Milledgeville and Cochran, Ga., 65 miles.

Ga., Valdosta.—The Valdosta, Moultrie & Western Railway, it is reported, may be extended to Montgomery, Ala., according to a report from there. Survey in progress in Alabama. Frank Roberts of Valdosta, Ga., is president.

Ga., Wrightsville.—President A. F. Daley confirms report that the Wrightsville & Tennille Railroad Co. has appropriated \$100,000 for improvements and says that considerable work has been done on reduction of grades. A steam shovel is being used, and this work will continue. Probably \$75,000 to \$80,000 will be put in the roadway.

La., New Orleans.—Official announcement of the lease of the Louisiana Southern Railroad by the Frisco system is reported from St. Louis, and it is understood that an extension of about 20 miles is contemplated. P. Campbell is manager at New Orleans.

Miss., Woodville.—H. E. Abbott, engineer in charge, will, says a dispatch, survey for the proposed Woodville loop of the Illinois Central Railroad. A. S. Baldwin, Chicago, Ill., is chief engineer.

Miss., West Point.—An official says that the Seconer Valley & South East Railroad Co., which proposes to build a line from a point on Seconer River, in Calhoun county, via Houston and West Point to the Tombigbee River, has organized by electing 12 directors, with J. L. Smith chairman and J. P. Unger secretary and treasurer. L. T. Carlisle was elected president and Mr. Smith vice-president of the railroad. It is first proposed to build 18 miles from West Point northwest to Caradine, Miss. Steps to finance the plan will be taken immediately.

Mo., Jefferson City.—An officer of the Rock Island system denies the recent press report that it contemplates building a branch out of Jefferson City.

Mo., Kansas City.—The Kansas City & Southeastern Traction Co. is reported saying that construction of its line from Kansas City to Jefferson City via Leeds, Warrensburg, Sedalia and other points, 125 miles, will not be started until the fall. Capital, \$5,000,000; issued, \$180,000; bonds authorized, \$5,000,000. C. A. Sims, 3724 E. 27th St., Kansas City, Mo., is president, and J. C. Herring, 22d and Jackson Sts., chief engineer.

Mo., Middletown.—The St. Louis, St. Charles & Northern Traction Co. it is reported, will not begin construction for eight months on its proposed line to connect St. Louis, St. Charles, Old Monroe, Middletown, Laddonia and Mexico, Mo. Capital, \$3,000,000. C. B. Duncan of Corso, Mo., is president; R. E. Race, Mexico, Mo., is vice-president and general manager.

Mo., St. Louis.—The Manufacturers' Railway Co., George F. Moore, president, is reported to have prepared plans for a freight terminal at the northeast corner of Broadway and Miller St. Trackage facilities will be materially increased.

N. C., Andrews.—Construction is reported begun on the railroad from Andrews to Aquone, N. C., at a point about seven miles from Andrews. Paul O. Brosius of Lock Haven, Pa., and others are interested.

N. C., Booneford.—The Black Mountain Railway, extending from a point on the Clinchfield Railroad between Booneford and Galax to Meaville, Burnsville and Caney River, 16 miles, with a branch from Burnsville to Murchison, 12 miles, will, it is reported, be further extended from Caney River via Barnardsville and Democrat to Asheville, N. C., 30 miles. J. Bis Ray of Burnsville and others are interested.

Okl., Ardmore.—The Ardmore, Duncan & Lawton Railroad Co., says a dispatch, is chartered with \$3,000,000 authorized capital and headquarters at Ardmore to build a line from there via Duncan to Lawton, 100 miles northwest. Any motive power may be used. Directors are A. Leighton Howe, Edward Clinton Lee, J. Bonal Taylor and Eli R. Sutton of Philadelphia, Pa.; Jake L. Hamon, Fred R. Ellis, R. L. Robertson, Guy C. Robertson and M. S. Simpson, all of Lawton, Okla.

Okl., Bartlesville.—A prominent official of the Missouri, Kansas & Texas Railway writes that the company has no plan under consideration to build from Bartlesville to Pawhuska and thence to Enid, Okla., as was recently reported in a press dispatch.

S. C., McBee.—W. R. Bonsal of Hamlet, N. C., it is reported, has made a proposition to build a railroad extension from McBee via Bishopville to Sumter, S. C., about 40 miles, provided that rights of way are furnished, together with terminal sites. It is indicated that the road will be extended

south of Sumter, perhaps to Charleston. The Seaboard is believed to be interested.

Tenn., LaFollette.—The Kentucky Lumber Co., Cincinnati, O., says, with reference to a recent report, that while it anticipated the construction of a standard-gauge railroad about seven miles long, it has decided instead to build a steel logging road of 42-inch gauge with 58-pound rails and to equip it with log loaders and screw engines. Address, 1010 First National Bank Bldg., Cincinnati, O.

Tenn., Nashville.—A dispatch says that Carmichael & Spradlin of Gallatin, Tenn., have been awarded the contract for grading on the Nashville-Gallatin Interurban Railway from Gallatin to Avondale, seven miles. Other contracts are to be let immediately. Headquarters, Stahlman Bldg., Nashville, Tenn. H. H. Mayberry is president.

Tex., Bartlett.—C. J. Grainger, vice-president and general manager, says that the Bartlett Western Railway Co. will complete lines from Bartlett to Florence, Tex., 25 miles, which will include a 60-foot wooden bridge. Some construction has been done and work will begin as early as possible from Jarrell to Florence, 12 miles. Plans not ready for Rockdale extension. Incorporators: J. W. Jackson, president; C. J. Grainger, vice-president and general manager; C. C. Bailey, treasurer; W. W. Walton, secretary; J. L. Bailey, Stanton Allen, H. A. Brehm, Eugene Fowler, W. J. Cagle and Mrs. M. A. Goode, all of Bartlett, Tex. Mr. Grainger is contractor.

Tex., Bovina.—An officer confirms report of charter of the Texas, Gulf & Northern Railway Co. to build a line from the Pecos & Northern Texas Railroad (Santa Fe system) in Farmer county south to a point near Midland, Tex., on the Texas & Pacific Railway, 175 miles. Rush work, it is said, will be made of the first 30 miles. R. E. Davis is chief engineer. Incorporators: J. A. Underwood of Honey Grove, Tex.; J. F. Sadler of Weatherford, Tex.; J. D. Bedford, W. D. Patton, J. M. Neeley, H. B. Sanborn, M. C. Le Master, R. E. Underwood, E. B. Sanders and R. E. Davis, all of Amarillo. Work on bonuses and other contracts now under way. Headquarters, Nunn Bldg., 113 West 5th St., Amarillo, Tex. John D. Bedford is vice-president.

Tex., Denison.—An official of the Missouri, Kansas & Texas Railway says that no additional tracks at Ray, Dallas and Hillsboro have been authorized. This refers to a recent press report.

Tex., Fort Worth.—Application is reported made to charter the Fort Worth Southern Traction Co. to build and operate an electric interurban railway from Fort Worth to Cleburne, Tex., about 32 miles. The Northern Texas Traction Co. of Fort Worth is interested. The incorporators are G. H. Clifford, W. C. Forbes and W. A. Hanger, all of Fort Worth; capital \$1,500,000. All are connected with the Stone & Webster lines. Construction is to begin soon.

Tex., Oakville.—L. A. Whitney and others are reported promoting plans for a railroad from Oakville to Kennedy, Tex., 30 miles, and \$150,000 in bonuses is said to be subscribed.

Tex., San Angelo.—W. W. Colpitts, chief engineer of the Kansas City, Mexico & Orient Railway, is quoted saying that construction of the Del Rio branch will probably begin soon from San Angelo via Eldorado and Sonora. The line from San Angelo via Mertzon and other points to Alpine on the Southern Pacific, 223 miles, will, it is expected, be completed within nine months. Track is now being laid two miles out of Mertzon, which is 32 miles from San Angelo.

Va., Abingdon.—McGhee & Royer of Roanoke, Va., are reported making the survey for the contemplated extension of the Virginia-Carolina Railway from Konnarock, Va., to Jefferson and Wilkesboro, N. C., about 50 miles. Stewart Royer is in direct charge. W. E. Mingas of Abingdon, Va., is president of the road. It is rumored that George L. Carter of Bristol, Tenn., is interested.

W. Va., Morgantown.—A letter says that the National Power Co. of Pittsburgh is not ready to announce plans for its contemplated electric railway from Point Marion, Pa., up the Cheat River Valley into West Virginia. E. J. Cole and others are interested.

STREET RAILWAYS

Ala., Mobile.—The Mobile Light & Railroad Co. announces that it will apply for franchise to build tracks on St. Emanuel St. from Augusta St. to Charleston St. J. H. Wilson is president.

Ark., Fort Smith.—The Fort Smith Light & Traction Co. is reported securing rights of

way for an extension to Mulberry, Ark. L. R. Robertson is chief engineer.

Ga., Rockmart.—It is understood that J. S. Davitte contemplates building 10 miles of street railway.

Ga., Waycross.—Charter is reported asked for a street railway with \$500,000 capital stock, which, in addition to providing local means of transit, will reach Hebardville, Deenwood, Winona Park, Blackshear and Wareboro. Those interested are L. J. Cooper, A. M. Knight, J. L. Walker, Dan Lott, J. S. Williams, J. M. Cox, George W. Deen, T. H. Calhoun, L. A. Wilson, John W. Bennett and W. W. Lambdin.

Mo., St. Louis.—The United Railways of St. Louis will, it is reported, expend a total of about \$10,000,000 for its improvements under way, which include considerable

rebuilding of lines, with ties laid in concrete. It is estimated that the reconstruction will cost about \$30,000 per mile. Robert McCulloch is president and general manager.

Tenn., Memphis.—An ordinance is reported passed authorizing the Memphis Street Railway Co. to build a cross-town line from Railroad Ave. on Bellevue, Linden and Cleveland Sts. to Poplar St., work to begin within 30 days.

Tex., Brownsville.—A dispatch says that J. C. Debrun and associates have applied for a street-railway franchise, agreeing to complete three miles of track within a year.

W. Va., Grafton.—The Grafton Traction Co. is reported to have begun construction of an extension to the Besumont Addition. Grade is said to be done on the proposed extension to Grafton Park.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

Acetylene Lighting Plant.—J. H. Harris, Union City, Ga., wants prices on acetylene lighting plant for \$10,000 residence.

Automobiles.—Southern Auto Co., G. F. Williams, manager, 316 E. Pine St., Fitzgerald, Ga., wants to correspond with automobile manufacturers; view to agency.

Baling Press.—Wallace M. Quinn, Crisfield, Md., wants new or second-hand hand baling press for baling sea moss or grass in 200-pound bales.

Bar Iron, etc.—Norfleet Brokerage Co., Suffolk, Va., wants to correspond relative to handling bar iron, nails, etc.

Bags.—Norfleet Brokerage Co., Suffolk, Va., wants to correspond relative to handling bags.

Bicycles.—Southern Auto Co., G. F. Williams, manager, 316 E. Pine St., Fitzgerald, Ga., wants to correspond with bicycle manufacturers; view to agency.

Blackboards.—Southern Desk Co., Hickory, N. C., wants to correspond with manufacturers of blackboards.

Boiler.—Office Commissioners of Chatham County and Ex-Officio Judges, Savannah, Ga. Bids will be received until July 19 for furnishing and installing at county jail one No. 9 Haxton base burning boiler, with fittings and castings complete. Specifications can be had on application to above office; Edwin M. Frank, clerk County Commissioners.

Boiler.—Lincolnton Handle Co., Lincolnton, N. C., wants prices on 30 to 40-horsepower second-hand boiler.

Boiler-feed Manufacturers.—J. E. Caldwell, Galax, Va., wants to place order for manufacture of automatic steam boiler feed, consisting of copper tubes and set of levers attached to cast iron or composition-metal base; also wants to buy copper pipe for same.

Boilers.—North Carolina School for Feeble-Minded, Dr. Ira M. Hardy, secretary, Washington, N. C., wants prices on boilers.

Boilers.—Purchasing Agent of Kansas City, Mo., will receive bids until 2 P. M. July 12 for design, manufacture and installation of battery of water-tube boilers, according to plans and specifications on file with Board of Fire and Water Commissioners, E. B. Harrington, secretary.

Bottles.—W. S. Dickens, Gulfport, Miss., wants glass bottles for pickle and syrup factory.

Brick.—R. N. Hunter Company, Charlotte, N. C., wants prices on 60,000 common brick, two-thirds hard.

Brick Machinery.—Ladd-Birchy Fire-Brick Co. wants wet pan for making silica brick.

Brick Plant.—P. H. Dunn, Hamilton, Ala., wants information on brickmaking and prices on machinery; 20,000 to 25,000 capacity daily.

Bridge Construction.—Sealed proposals received at office of County Clerk of King George county, King George, Va., until noon July 24, and then opened, for construction of steel bridge with concrete abutments and pedestals over Lambs Creek; central span 30 feet long and two side spans 16½ feet long; plans and specifications on file in office

of Clerk of King George county and at office of State Highway Commission, Richmond, Va.; bids to be for superstructure and substructure and both together; usual rights reserved; F. C. S. Hunter, clerk; P. St. J. Wilson, State Highway Commissioner.

Bridge Construction.—State Roads Commission, Union Trust Bldg., Baltimore, Md., will receive bids until noon July 17 for construction of bridge over Nanticoke River between Dorchester and Wicomico counties at Sharptown, Md.; total length 640 feet, including pivot draw with two 75-foot openings, six spans, deck-plate girder construction, draw span through riveted truss; bids to be made upon blank form contained in book of specifications, which will be furnished by commission upon application and payment of \$2 for each section; blueprints of each section furnished at rate of 25 cents for each half-mile; certified check \$500.

Building Materials.—Smith Higgins, 254 Peters St., Atlanta, Ga., wants prices on building materials.

Building Materials.—W. B. Barrow, Raleigh, N. C., wants prices on limestone, terrazzo floors, metal laths, press brick, dampproofing and structural steel.

Button Machinery.—Walter C. Watt, 179 Main St., Barnesville, O., wants to correspond with manufacturers of machinery to make buttons from mussel shells.

Cannery.—Frank Henius, Trav. Industrial and Immigration Agent, 106 Exchange Bldg., Memphis, Tenn., wants prices on equipment for fruit and vegetable cannery.

Cement.—See "Sand, Gravel, etc."

Cement.—Jamison & Morris, Greenville, S. C., want prices on cement.

Cement.—Norfleet Brokerage Co., Suffolk, Va., wants to correspond relative to handling cement.

Cold-storage Plants.—G. W. Judy & Co., Tampa, Fla., are receiving estimates on cold-storage plant; 12 to 16-car capacity.

Cement.—Office of Constructing Quartermaster, U. S. Military Prison, Fort Leavenworth, Kans. Sealed proposals received until 2 P. M. July 6 for furnishing 10,000 barrels Portland cement, 390 pounds to barrel. Proposals must be signed by bidder, enclosed in sealed envelope, addressed to undersigned and marked "Proposal for Cement, to be Opened July 6, 1911." Thomas H. Slavins, Lieutenant-Colonel, Depot Quartermaster-General, U. S. Army, Constructing Quartermaster.

Clothing Cabinets.—Boyles Bros. Company, Winston-Salem, N. C., wants prices on clothing cabinets.

Concrete Reservoir.—Mayor and City Council, Americus, Ga., will receive sealed proposals until July 17 for construction of reinforced concrete reservoir, 60 feet diameter, 13 feet deep; plans and specifications on file at office of J. B. Ansley, City Engineer; certified check 5 per cent. of bid; rights reserved; T. N. Hawkes, Clerk and Treasurer.

Concrete-Block Machinery.—J. B. Carr & Co., Raleigh, N. C., want prices on machinery for making concrete blocks.

Conveying Equipment.—Department of Interior, Office of Elliott Woods, Superin-

tendent U. S. Capitol Building and Grounds, Washington, D. C. Proposals received and opened at above office at 12 noon July 22 for transportation of freight and other purposes in subway from Capitol to Senate and House office buildings and in sub-basement corridors of Senate and House office buildings; specifications and plans furnished on application; rights reserved; deposit of \$5 required for return of plans.

Copper Pipe.—See "Boiler-feed Manufacturers."

Crane.—McKenna Co., 1133 Williamson Bldg., Cleveland, O., wants to rent 15-ton locomotive crane, with boom as long as possible; to be used about four to six months; or will buy 15-ton dipper truck second-hand locomotive crane.

Creamery Machinery.—Chamber of Commerce, W. S. Creighton, secretary, Rock Hill, S. C., wants prices on machinery for creamery.

Cotton Yarns.—Boghossian & Co., 550 Main St., Paterson, N. J., want prices from Southern manufacturers on cotton yarns for foreign trade; has inquiry from Levant for Nos. 16, 18, 20, 22 and 24 yarns cotton on skeins. Give lowest grade and prices.

Crusher.—J. B. Ellis, president Commercial Club, Elsbury, Mo., will want rock crusher for road construction.

Dairy Barn Equipment.—J. B. Andrews, 412 Watt, Rettew & Clay Bldg., Roanoke, Va., wants prices on dairy barn equipment.

Desks.—Southern Desk Co., Hickory, N. C., wants to correspond with manufacturers of office desks.

Dredge.—Louis S. Simon & Co., Rusk and I. & G. N. track, Houston, Tex., want dredge; prompt delivery.

Dredging.—U. S. Engineer Office, Room 2 Custom-house, Norfolk, Va. Proposals for dredging South Branch of Elizabeth River, Virginia, will be received until noon August 2. Information on application. Mason M. Patrick, Lieutenant-Colonel, Engineers.

Dredging.—U. S. Engineer Office, Room 2 Custom-house, Norfolk, Va. Proposals for dredging South Branch of Elizabeth River, Virginia, received until noon August 2. Information on application. Mason M. Patrick, Lieutenant-Colonel, Engineers.

Electrical Equipment.—Proposals received at office of Governor of Maryland, Union Trust Bldg., Baltimore, Md., until noon July 14 for installation in power-house of Springfield State Hospital, Sykesville, Md., of boiler plant, engines, generators, switchboard and piping, according to plans and specifications by Henry Adams, consulting engineer, 855-859 Calvert Bldg., Baltimore, Md. Plans and specifications may be obtained from consulting engineer; deposit required for each set of plans or specifications.

Electrical Machinery, etc.—Sewerage and Water Board of New Orleans, La. Sealed proposals received by secretary at office of board, Room 508 City Hall Annex, until 3 P. M. July 10 for furnishing and delivering following: To drainage central power station, 50-kilowatt turbo-generator; to drainage pumping station No. 6, 100-horse-power induction motor, starting compensator and switchboard panel with switches and instruments; to drainage pumping station No. 7, 100-horse-power induction motor, starting compensator and switchboard with switches and instruments; plans and specifications, with blank form of proposal, obtained upon application at office; usual rights reserved; Geo. G. Earl, general superintendent; F. S. Shields, secretary.

Electrical Railway Equipment.—J. S. Davitte, Rockmart, Ga., wants estimate or bid on equipment for 10-mile street-car system, including four cars, electric plant and power, wiring, etc.

Electric Motor.—Ritz & Pennebaker, Box 328, Rome, Ga., want prices on electric motor.

Elevators.—Smith Higgins, 254 Peters St., Atlanta, Ga., wants prices on electric elevators.

Engines.—North Carolina School for Feeble-Minded, Dr. Ira M. Hardy, secretary, Washington, N. C., wants prices on engines.

Formaldehyde.—Central Chemical Co., Memphis, Tenn., wants to correspond with manufacturers of formaldehyde.

Filters.—Proposals received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 10 A. M. July 11, and opened immediately thereafter, for furnishing and installing filters at Naval Academy, Annapolis, Md. Applications for proposals should refer to Schedule 3717. Blank proposals furnished upon application to navy pay office, Baltimore, Md., or to the bureau. T. J. Cowie, Paymaster-General, U. S. N.

Fire Equipment.—Wythe Protective Association, L. M. Beale, secretary-treasurer, Hampton, Va., wants description and prices of fire fighting equipment for suburban community.

Gasoline Engine.—J. H. Harris, Union City, Ga., wants prices on gasoline engine.

Glass Cards.—J. T. Meere, 614 E. Main St., Chattanooga, Tenn., wants glass cards (in colors and various designs).

Grain, etc.—Norfleet Brokerage Co., Suffolk, Va., wants to correspond relative to handling hay, grain, feed, flour, etc.

Gravel.—Duval County Commissioners, Jacksonville, Fla., will receive bids until 10 A. M. July 21 for furnishing and delivering carload lots of Georgia gravel at Broward or Duval station, on Seaboard Air Line Railway north of Jacksonville, to conform to specifications of said material as used by Chatham county, Georgia; sample of one bushel of gravel required with each bid; certified check \$100.

Hardware.—J. K. Dorn, Miami, Fla., wants prices on hardware.

Hay.—See "Grain, etc."

Heating.—Executive Committee of Board of Education, Nashville, Tenn., will receive bids at office of Allen-Scales Engineering Co., Stahlman Bldg., Nashville, until July 1 for heating and ventilating systems in Tarbox and Howard public schools; plans and specifications from engineers on deposit of \$5.

Heating.—A. C. Willison, county superintendent, Lonaconing, Md., will receive bids until July 10 for heating high-school building; certified check for \$250; plans and specifications at office of George F. Sansbury, architect, 9-10 Citizens' Bank Bldg., Cumberland, Md.

Heating Plant.—Board of directors, O. P. Barry, chairman building committee, Alexandria, Tenn., wants prices on hot-air furnace.

Heating Plant.—Smith Higgins, 254 Peters St., Atlanta, Ga., wants prices on heating plant for \$25,000 department store.

Heating Plant.—J. H. Harris, Union City, Ga., wants prices on steam-heating plant for \$10,000 residence.

Ice Machinery.—L. N. Cox, 301 Boundary Ave., Macon, Ga., wants addresses of manufacturers of ice machinery.

Ice Plant.—L. B. Grandy, Mayesville, S. C., wants prices on equipment for small ice plant.

Ironing-board Manufacturers.—M. E. Beckham, 1405 Taylor St., Columbia, S. C., wants to place order for manufacture of patented folding ironing board.

Jetty Construction.—U. S. Engineer Office, Savannah, Ga. Proposals for furnishing and placing stone for raising low places in jetties at Cumberland Sound, Georgia and Florida, will be received until noon July 26. Information on application. Dan C. Klingman, Colonel, Engineers.

Lead.—Sealed proposals, endorsed "Proposals for Lead," addressed to Board of Awards of Baltimore, Md., will be received at office of City Register, City Hall, until 11 A. M. July 12 for furnishing and delivering to Water Board, at Gay and Wolfe Sts., 25 tons, 200 pounds per ton, of Omaha pig lead. Specifications may be obtained at office of Water Engineer, City Hall; all proposals accompanied by a certified check for \$50; successful bidder required to give bond; reserve right to reject any or all bids.

Lighting Fixtures.—J. K. Dorn, Miami, Fla., wants prices on combination lighting fixtures.

Lime.—Norfleet Brokerage Co., Suffolk, Va., wants to correspond relative to handling lime.

Locomotive.—Pennsylvania Equipment Co., West End Trust Bldg., Philadelphia, Pa., wants second-hand 40 to 65-ton standard-gauge geared locomotive.

Locomotive.—Southern Lumber & Timber Co., Hillsdale, Miss., wants 18 to 24-ton 42-inch gauge second-hand locomotive.

Lumber.—Mississippi River Commission, First and Second districts, United States Engineer's Office, Custom-house, Memphis, Tenn. Sealed proposals for furnishing about 621,624 feet B. M. of yellow pine and oak lumber will be received until noon July 28, and then publicly opened. Information on application. Clarke S. Smith, Major, Engineers.

Lumber.—G. A. Chamblin, 551 S. Conception St., Mobile, Ala., wants prices on 109,000 feet B. M. of pecky cypress lumber in following sizes: 1890 pieces 2x4 inches, 8 feet long; 1260 pieces 2x6 inches, 8 feet 4 inches long; 84,000 superficial feet of 2x6 inches to 2x12 inches, lengths are to be multiples of 4 feet.

Metal Ceiling.—J. K. Dorn, Miami,

Fla., wants prices on metal ceiling per square.

Metal Lath, Reinforcing Material, etc.—Office of Superintendent of Prisons, Department of Justice, Washington, D. C. Sealed proposals received in this office until 10 A. M. July 27, and then opened, for furnishing metal lath, furri corner beads and reinforcing material for ceilings, walls, floors, etc., in administration building and corridors of main cell wings, United States penitentiary, Atlanta, Ga., in accordance with specifications, copies of which may be had, together with further information, from R. V. La Dow, Superintendent of Prisons.

Mixer.—Ritz & Pennebaker, Box 328, Rome, Ga., want prices on iron mixer, with paddles on inside; operation by electric power.

Mosaic Flooring.—J. K. Dorn, Miami, Fla., wants prices on ceramic mosaic flooring per square foot.

Motor Truck.—L. B. Turner, Oxford, N. C., wants prices on automobile truck for hauling lumber, etc.

Nails.—See "Bar Iron, etc."

Paving.—F. J. Von Zuben, acting city engineer, Fort Worth, Tex., will receive bids until 9 A. M. July 8 for paving Elizabeth St. and Kentucky Ave. in front of lot 5, block 7, Boaz-Summit Addition; paving material to be bitulithic, vitrified brick, asphalt or macadam; certified check \$1000; forms of proposal and specifications on file in office of City Engineer; J. H. Maddox, Commissioner Streets and Public Property.

Paving.—See "Sewers and Paving."

Paving.—Proposals received by Board of Public Works, Wm. R. Porter, chairman, Key West, Fla., until 7:30 P. M. July 26 for grading, curbing and paving of certain streets with either wood blocks, vitrified brick, bitulithic, asphalt blocks or asphalt macadam surfacing material; work to embrace approximately preparation of suitable foundations, furnishing and setting 15,356 linear feet stone curb, surfacing 67,557 square yards pavement and furnishing necessary drainage castings. Specifications may be procured and plans and profiles seen at office of clerk to Board of Public Works, and general information from the chairman; usual rights reserved; James Nisbet Hazlehurst, consulting municipal engineer, Candler Bldg., Atlanta, Ga.

Paving.—L. H. Baker, secretary-treasurer, Shreveport, La., will receive bids until 10 A. M. July 30 for 50,318 yards brick paving, 50,713 yards wood block, 53,128 yards sheet asphalt, 60,088 yards asphaltic concrete, 49,320 yards bitulithic and 10,461 yards concrete paving; certified check, 10 per cent. of bid; plans and specifications on file in engineer's office.

Paving, etc.—Duval County Commissioners, Jacksonville, Fla., will receive bids until 10 A. M. July 7 for grading marsh causeway on Duval Rd. (Fernandina Rd.) from south side of marsh to Nassau River; until July 21 for grading and paving Main St. from city limits to 16th St. with vitrified brick and curbing and grading, and paving Panama Park Rd. from Phoenix Park to Whitaker Ave. with vitrified brick and curbing; specifications and proposals furnished upon application to Gail L. Barnard, County Engineer, Room 9 Courthouse; also until July 21 for hauling and spreading oyster shells and gravel as per plans and specifications on file in office of County Engineer, and which can be obtained from him; certified check \$100.

Pump.—J. H. Harris, Union City, Ga., wants prices on pump for pumping water from well to dwelling.

Pumps.—North Carolina School for Feeble-Minded, Dr. Ira M. Hardy, secretary, Washington, N. C., wants prices on pumps.

Road Construction.—J. L. Knight, chairman street committee, Buena Vista, Va., receives bids for construction of one mile of macadam road; 16 feet wide; plans and specifications on file with City Engineer; stone can be secured near work.

Road Construction.—Office of State Highway Commission, Richmond, Va. Bids received by undersigned and Board of Supervisors of Lee County at Clerk's office at Jonesville, Va., up to 11 A. M. August 9 for improvement of about 180 miles of county highway. Separate bids are asked on following sections in accordance with printed notes: Rose Hill district, grade, drain and macadamize about 20 miles; grade and drain about 37 miles; Jonesville district, grade, drain and macadamize about 25 miles; grade and drain about 31 miles; Yokum Station district, grade, drain and macadamize about 16 miles; grade and drain about 26 miles; Rocky Station district, grade, drain and macadamize about 19 miles; grade and drain about 15 miles; plans and specifications at office of State Highway Commission, Rich-

mond, Va., and of County Engineer, Pennington Gap, Va., and at Clerk's office, Jonesville, Va., or a complete set of maps, plans and specifications may be had on application to County Engineer, Pennington Gap. Bids for each separate section (for grading, draining and macadamizing) must be accompanied by certified check for \$500, but certified check for \$1500 will entitle bidder to bid on three or more sections; bids for each separate section of grading and drainage accompanied by certified check for \$200, but certified check for \$500 will entitle bidder to bid on three or more sections of grading; usual rights reserved; P. St. J. Wilson, State Highway Commissioner.

Road Construction.—State Roads Commission, Union Trust Bldg., Baltimore, Md., will receive bids until noon July 19 for building six sections of State highway, aggregating 19.82 miles in length, in following counties: Anne Arundel, one section, 5 miles in length, from Owings toward Mt. Zion (stone surfacing); Calvert, one section, 6 miles in length, from Owings toward Prince Frederick (stone surfacing); Carroll, two sections, aggregating 5.23 miles in length, between Gamber and Fenby (stone macadam); Baltimore county, two sections of Frederick Rd. from city limits to Catonsville, aggregating 3.53 miles in length (pitch macadam). Bids must be made upon blank form contained in book of specifications, which will be furnished by commission upon application and payment of \$2 for each section; blueprints of each section furnished at rate of 25 cents for each half-mile; certified check \$500.

Roofing Paper.—Wythe Protective Association, L. M. Beale, secretary-treasurer, Hampton, Va., wants samples and prices on roofing paper.

Roofing Slate.—J. L. Polk, Imboden, Ark., wants prices (delivered) on roofing slate.

Safe, etc.—Bank of Niota, Niota, Tenn., wants prices on safe, vault and other bank fixtures.

Sand, Gravel, etc.—C. B. Holt Contracting Co., Ninth Ave. and 19th St., Birmingham, Ala., wants prices on sand, gravel, cement and tarred paper.

School Furnishings.—Board of directors, O. P. Barry, chairman building committee, Alexandria, Tenn., wants prices on desks and other equipment for school.

Screens, etc.—Baltimore (Md.) Board of Awards will receive bids until 11 A. M. July 12 at office of Richard Gwynn, City Register, City Hall, for furnishing and delivering fixed screens, etc., at sewage-disposal works and at sewage pumping station, sanitary contract No. 69, as shown on plans on file in office of Calvin W. Hendrick, chief engineer of Sewerage Commission. Specifications and plans can be obtained upon application at office of Sewerage Commission, Room No. 904 American Bldg.; charge of \$5 will be made for each specification and blueprints; certified check \$400; approximate quantities, 5 sets bar screens and appurtenances, total weight about 25 tons; 30 linear feet pipe railing; 1 trolley hoist; 125 linear feet track for trolley hoist.

Seating.—Southern Desk Co., Hickory, N. C., wants to correspond with manufacturers of office chairs.

Shoe Keys, Coupler Knuckle Pins, etc.—Sealed proposals received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until 10:30 A. M. July 24, and then opened, for furnishing shoe keys, coupler knuckle pins, malleable-iron castings, rubber dredging sleeves, lumber and piles. Blanks and general information relating to this circular (No. 657) may be obtained from this office or offices of assistant purchasing agents at 24 State St., New York; 614 Whitney-Central Bldg., New Orleans; and 1058 North Point St., San Francisco; also from U. S. Engineer offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City; Chamber of Commerce, Quincy, Ill., and Chamber of Commerce and Board of Trade, Tacoma. F. C. Boggs, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

Sewers.—Sealed proposals received by Mayor and City Council, Thomaston, Ga., until 2 P. M. August 1 for furnishing material, machinery and labor to construct sewer system; plans at office of City Clerk, R. E. Rushin, and of engineer, J. B. McCrary Company, 1211 Empire Bldg., Atlanta, Ga.; specifications may be obtained from either; certified check for 5 per cent. required; usual rights reserved; Claude Worrell, Mayor.

Sewer Construction.—City of Shreve-

port, La., invites sealed bids 10 A. M. July 11 for building Line Ave. and Duck Lake storm sewers as per plans and specifications on file in engineer's office; certified check for 10 per cent. of bid; successful bidder to furnish 50 per cent. indemnity bond; rights reserved; L. H. Baker, secretary-treasurer.

Sewer Construction.—Bids will be received at office of Ennis M. Douglass, City Clerk, Memphis, Tenn., until noon July 4 for furnishing labor, tools, hauling for and material (except vitrified pipe and manhole rims and covers) and doing following sewer work: North Watkins St. from Galloway Ave. to Peach Ave., 1650 linear feet 8-inch pipe, necessary manholes; Calhoun Ave. and South 2d St., 70 linear feet 8x14-foot culvert, 2 inlets. The work on each street will be let as a whole. Specifications and profiles governing the above work may be seen at the office of City Engineer; certified check \$250; E. H. Crump, Mayor.

Sewers and Paving.—Sealed proposals received by Mayor and City Council, Americus, Ga., until 7 P. M. July 10 for construction of pipe sewers and appurtenances, approximately 12 miles; about 50,000 square yards paving on business streets; plans and specifications on file at office of J. B. Ansley, City Engineer, and obtainable on deposit of \$5; rights reserved; T. N. Hawks, Clerk and Treasurer.

Sewage Clarification Tank, etc.—S. B. Tracy, City Clerk, Winchester, Ky., receives bids until 7.30 P. M. July 7 for constructing sewage clarification tank and sludge drying bed; work consists of making all excavations, back-filling and grading, furnishing materials and constructing complete sewage clarification tank and sludge drying bed, in accordance with plans and specifications prepared by Charles E. Collins, consulting engineer, Philadelphia, Pa., and on file with S. H. Rutledge, City Engineer; proposals to be made on blank forms obtainable from City Engineer; certified check \$500, payable to J. H. Hughes, Mayor.

Store Fixtures.—Boyles Bros. Company, Winston-Salem, N. C., wants prices on store fixtures.

Sewer Pipe.—Norfleet Brokerage Co., Suffolk, Va., wants to correspond relative to handling sewer pipe.

Steam Plant.—See "Electrical Machinery, etc."

Steel.—Jamison & Morris, Greenville, S. C., want prices on steel for 100x400-foot three-story building.

Tarred Paper.—See "Sand, Gravel, etc."

Tobacco Machinery.—J. H. McElwee, Statesville, N. C., wants smoking tobacco machinery.

Tubing, etc.—Proposals received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 10 A. M. July 11, and opened immediately thereafter, to furnish at navy-yard, Washington, D. C., a quantity of naval supplies, as follows: Schedule 3722, flexible copper tubing; schedule 3729, air hose. Applications for proposals should designate schedules desired by number. Blank proposals furnished upon application to bureau. T. J. Cowie, Paymaster-General, U. S. N.

Ventilating.—See "Heating."

Wagons.—C. B. Holt Contracting Co., Ninth Ave. and 19th St., Birmingham, Ala., wants prices on dump wagons.

Wall Construction.—U. S. Engineer Office, Savannah, Ga. Proposals for furnishing and placing stone for raising training wall in Brunswick harbor, Georgia, will be received until noon July 12. Information on application. Dan C. Kingman, Colonel, Engineers.

Water-works.—Sealed proposals received by Mayor and City Council, Thomaston, Ga., until 2 P. M. August 1 for furnishing material, machinery and labor to construct water-works; plans at office of City Clerk, R. E. Rushin, and of engineer, J. B. McCrary Company, 1311 Empire Bldg., Atlanta, Ga.; specifications obtained from either; certified check for 5 per cent. required; usual rights reserved; Claude Worrell, Mayor.

Water-works.—City of Milan, Mo., will receive bids until 7 P. M. July 8 for following: Constructing earth dam, 25,000 cubic yards; furnishing and laying about 4000 feet 8-inch, 11,968 feet 6-inch and 2344 feet 4-inch cast-iron pipe; furnishing and setting 11 fire hydrants; resetting 8 fire hydrants; furnishing and setting 4 8-inch, 25 6-inch and 21 4-inch valves; furnishing and laying 250 feet 8-inch vitrified tile; laying 900 feet 6-inch pipe; connecting standpipe; repairing service pump; certified check 5 per cent. of bid; plans and specifications on file with City Clerk and with Hiram Phillips, 1900 Third National Bank Bldg., St. Louis

Mo.; John W. Bingham, Mayor; William Cochran, Jr., clerk.

Wood Alcohol.—Central Chemical Co., Memphis, Tenn., wants to correspond with manufacturers of wood alcohol.

Woodworkers.—See "Ironing-board Manufacturers."

Wooden Drums.—Ritz & Pennebaker, Box 328, Rome, Ga., want prices on wooden drums for shipping purposes.

INDUSTRIAL NEWS OF INTEREST

Manufacture of Paley Concrete Tile.

The buildings for the Southern Concrete Products Co., 725 14th St. N. W., Washington, and the installation of the machinery of the plant have been completed. It is expected to begin operations in a short time for the manufacture on an extensive scale of the Paley concrete tile as an important construction material.

Foos Engines in Municipal Plant.

Bellevue, Ia., has bought two Foos producer engines, built by the Foos Gas Engine Co., Springfield, O., which will be used to operate the municipal electric-light plant. These engines are of the Foos three-cylinder vertical type and will develop 100 horsepower. It is expected to have the installation completed and the plant in operation in a few weeks.

To Rebuild Sash and Door Plant.

The sash and door manufacturing plants of the Huttig Sash & Door Co. and the Wm. G. Frye Manufacturing Co., which were burned in St. Louis on successive nights, will be rebuilt at once on a larger scale by the Huttig Sash & Door Co. This company has purchased the business and stock of the Frye company and expects to carry on a largely increased business on the completion of the new plant.

To Open Consulting Engineer Office.

Arrangements have been made by George H. Whitfield, who is with the Virginia Railway & Power Co. of Richmond, for opening an office in that city as consulting electrical and mechanical engineer, and at the same time retaining the position of consulting engineer for the company. In accordance with this arrangement Mr. Whitfield will at once take up the work of general electrical and mechanical consulting engineering.

Indian Refining Co.'s New Headquarters.

The Indian Refining Co.'s general and executive offices are now located permanently in the Whitehall Bldg., 17 Battery Pl., New York. Among the products of this company are its well-known road and fuel oils and its Indian "Timberasphalt," which is a wood preservative for application to flooring, shingles, piling, railroad ties, paving blocks, telephone poles, crossarms, fence posts, bridge timber, mine and structural timber of every description.

Sprague Electric Office Changes.

The Sprague Electric Works of General Electric Co., 327 W. 34th St., New York, announces that James A. Clifford, manager of the Baltimore office of that company, has been appointed manager of the Philadelphia office. The Baltimore office will be in charge of Henry S. Patterson as subsidiary to the Philadelphia office. Frank W. Hall, former manager of the Philadelphia office, has been appointed manager of hoist sales, and after July 15 will be located in the New York offices of the company.

Portsmouth (Va.) Factory Site for Sale.

A water-front property, containing 73½ acres of high land with 6½ acres of water basin and frontage of 142½ feet on Deep Creek, near the Navy-yard, Portsmouth, Va., is for sale by S. L. Nushbaum & Co., Citizens' Bank Bldg., Norfolk. This property is suitable for a factory site, for development purposes or as an investment, and can be purchased by a quick buyer for \$150 per acre. There is an extensive settlement within one-half mile of this property, and it is passed by all boats running between North Carolina and northern points.

Develops Interurban Railroad Systems.

E. F. Wheaton of Henderson, Ky., who in the early part of this year organized the Henderson Interurban Co., which is now engaged in financing and building a 76-mile line connecting Henderson, Owensboro, Uniontown and Providence, Ky., offers his services to commercial bodies and committees for the promotion, financing and construction of interurban railway systems and electric-power plants. Mr. Wheaton furnished the plans by which the Business Men's Association of Owensboro is promoting an extensive interurban railway system

to connect Owensboro, Madisonville and other points in that section.

For Asheville Industries.

The Carolina Industries Co. has been formed by some of the leading citizens of Asheville, N. C., for the purpose of aiding in the development of the natural resources of that section. It will seek to aid the development of timber lands, mining properties, water-powers, railroads and other propositions that may assist in the upbuilding of the community, for which purpose a corps of engineers is employed. The company will, with the aid of its expert staff, assist in the promotion along financial, professional and legal lines of all propositions worthy of consideration that may be brought to its attention. The officers of this promotion company are S. Lipinsky, president; Archibald Nichols and W. P. Whittington, vice-presidents; H. Taylor Rogers, treasurer; D. H. Harris, secretary.

Opportunity for a Furniture Factory.

A good opportunity for a new organization to re-establish a furniture factory of 35 years' standing is offered as a result of the recent fire which destroyed the factory of the Loomis & Hart Manufacturing Co., Chattanooga. The sawmill, planing mill, lumber and building material business remains intact. A number of the older members of the company wish to retire from active business, for which reason a new organization is desirable to continue the furniture-manufacturing business. The present owners of the Loomis & Hart Manufacturing Co. state that they would take a liberal share of the stock, putting in their warehouse and office building and the necessary land. The new organization would have the advantage of the prestige of the company and a corps of trained employees, and a goodwill which has been built up by many years of painstaking work.

Jemison Companies in New Quarters.

By what the officers consider a piece of good fortune, the Jemison Real Estate & Insurance Co. and the Jemison-Seibels Insurance Agency of Birmingham, Ala., have obtained the quarters vacated by the People's Savings bank when that institution was consolidated with the American Trust & Savings Bank. They are located in the First National Bank Bldg., the quarters being ideally suited for the purpose both in location and in furnishings. The offices are commodious and attractive in every way, with elaborate marble finishing throughout. This change adds to the working facilities and increases the means for the efficiency of these enterprising companies. Views of the entrance to the building and of the office fixtures and equipment are shown in the Jemison Magazine, published in the interests of the company and its developments in Corey and other sections of the Birmingham district.

Economical Sand and Stone-Handling System.

An electric crane for the quick and economical handling of sand, stone and gravel has been installed by the Cleveland Crane & Engineering Co., Wickliffe (near Cleveland), O., for the Cleveland Builders' Supply Co. at its Wilson Ave. yards in Cleveland. The plant consists of a large reinforced concrete bin 120x20x15 feet high, and an electric three-ton gantry crane running lengthwise of the bin along the top of the walls. The crane is equipped with a main trolley and clamshell bucket. Each end of the gantry has a cantilever, one projecting over the cars on one side and one over the hopper for loading wagons. The saving in this installation is not alone in its ability to handle the sand and stone economically, but also in discharging it quickly, thus releasing the wagons immediately after arrival, thereby cutting down hauling costs. The owners of the plant feel that it will easily pay for itself in economy, and they can also give the best of service to their customers.

Saurer Motor Truck, "Pioneer Freighter."

The Saurer 5-ton truck with its 3½-ton load which left Denver on March 1 for New York city via San Francisco arrived at Chicago on the night of June 28. It is reported to have arrived in first-class condition after

what is said to be a phenomenal run for such a heavy truck over the rough part of the trip from Pueblo to Chicago. The average speed made was 11 miles per hour running time for the 700 miles, and this included eight hours of work to extricate the truck from a break through a highway bridge. It is claimed that this run of 700 miles with a motor truck weighing 14,000 pounds in 62 hours of actual going shows the "metal" of the Saurer machine and the dependability of high-class motor trucks as carriers of freight between cities. The "Pioneer Freighter" will stay in Chicago about a week and start on the final run to New York, passing through Toledo, Sandusky, Cleveland, Pittsburg, Erie, Buffalo, Rochester, Utica, Syracuse, Albany and Poughkeepsie. This truck is built by the Saurer Motor Co. of Plainfield, N. J., with general offices at 30 Church St., New York.

Recent Sales by Triumph Electric Co.

June was one of the most prosperous months in the history of the Triumph Electric Co. of Cincinnati. Among the orders received are the following, many of which are from Southern buyers: One 100-kilowatt motor generator set each for N. A. Dawson, Austin, Tex.; for Chattanooga Light & Railway Co., Chattanooga; for Wesco Supply Co., Fort Worth, Tex.; for the Oakley Factory Power Co., Oakley, O.; for T. C. Hughes, Cincinnati; nine kilowatt direct-connected generators from 5 to 45 kilowatts, and 26 motors, 1 to 10 horse-power, for the Wesco Supply Co., St. Louis; six alternating-current 20 to 50-horse-power motors for Commercial Electric Co., New Orleans; one 50-kilowatt generator and four 5-horse-power motors for the Henry Vogt Machine Co., Louisville; two 150-kilowatt generators and one 75-kilowatt generator for Kingsbury-Samuel Electric Co., Baltimore; 14 motors, 5 to 15 horse-power, and one 150 K. V. A. belted alternator for Unaka Tanning Co., Newport Tenn.; five motors, 12 to 25 horse-power, and one 75 K. V. A. belted generator for Holston Underwear Co., Knoxville, Tenn.; two 75-kilowatt generators for Tulsa, Okla.; also filled orders for 170 generators and motors for various sections of the country, and has shop orders for 200 more. In addition to these orders a number of inquiries have been received from foreign countries, including India, South Africa, New Zealand and South America. The Triumph company credits the receipt of these inquiries to the wide circulation in foreign countries of the industrial, trade and technical journals, such as the Manufacturers Record in which it advertises. It also gives due credit to the value of these journals in disseminating advertising information, to which cause a large proportion of its sales have been traced.

TRADE LITERATURE.

Tobin Bronze and Its Uses.

The valuable qualities and various uses of Tobin bronze are described in the booklet published by the Ansonia Brass & Copper Co., sole manufacturers of this metal, 99 John St., New York, with factories at Ansonia, Conn. This metal was a pioneer in the alloys of copper with other metals to form a non-corrosive strong metal. It can be rolled hot or cold, and has a high elastic limit, tensile strength and a uniform texture. When used in the form of rolled plates, bolts and rivets in contact with salt water it has given good results. Its resistance to corrosive action of sea water renders it valuable for condenser plates, marine shafting, electric motors, center-boards and hull plates. It is also used for linings of hydraulic cylinders and water cylinders of steam pumps. Used in the form of bolts, rods and plates, its resistance to wear and oxidation makes it useful for tanneries, dye-wood extract works, sugar factories, coal mines, etc.

Dodge Solid Friction Clutch.

In order to meet the demand for a friction clutch of great holding strength in transmitting power from the engine to main shafting and as otherwise may be required, the Dodge Manufacturing Co., Mishawaka, Ind., has developed the Dodge solid friction clutch. This clutch is described and illustrated in a booklet recently issued for distribution. This clutch insures the desired independent control which is an economic principle in modern factory management. Besides this, it insures every possible safeguard and protects human life in giving immediate opportunity for stopping all machinery in case of need. Laws have been passed in several States providing for friction clutches or power-disengaging devices. In all cases such safeguards form the em-

playes' protection against danger and the employer's protection against damages. The Dodge clutch means a saving of power ordinarily wasted in running idle shafts. This clutch is the Orton type, is simple in construction and easily applied.

J. B. King & Co.'s Plaster Products.

Folders describing "Diamond" brand plaster of Paris, King's wood-fiber plaster and King's Windsor asbestos cement, as manufactured by J. B. King & Co., 17 State St., New York, gives directions for using them and the advantages possessed by each in its own special use. The "Diamond" brand plaster of Paris is for finishing walls and ceilings, and is made from selected Nova Scotia gypsum. It is cool-working, and its strength, whiteness and uniformity have been favorably known for the past 30 years. King's Windsor asbestos cement, used for plastering walls and ceilings, is composed of calcined plaster manufactured from selected Nova Scotia and New Brunswick gypsum rock incorporated in suitable proportion with other high-grade ingredients, including asbestos fiber, hair, etc. King's wood-fiber plaster is the same material as Windsor asbestos cement dry mortar, except that strong wood fiber is used in place of sand. It is of a fibrous nature, which holds it together in plastic form, so there is no dropping behind the laths. Other products manufactured and distributed by this company are Windsor superfine cement, Windsor pulp plaster, "Ready Finish," "Diamond" brand plaster boards, marble dust, marble flour, "Terra Alba," perfected cold-water paint, J. B. White & Bros.' "Keene's Cement" and special mixtures to order. The Southern branch is Jones & Co., Norfolk, with warehouses in Norfolk, Charleston, Savannah and Brunswick.

Literary Notes.

Cost-Keeping for Manufacturing Plants.

By Sterling H. Bunnell, Ph.B., M.E. Clothbound, 245 pages. Published by D. Appleton & Co., New York. Price \$3 net.

The preparation of this volume for publication is based on the fact that cost-keeping is of vital importance to every manufacturing enterprise. Its object is to present in an orderly, concise and comprehensive manner approved principles of correct cost-keeping; to suggest time and labor-saving methods which will increase the accuracy of the cost system and promote its general usefulness to the organization, and to show how labor-saving, cost-reducing factory superintendence may be so closely linked with the necessary operations of cost finding that factory production may be increased so as to produce a large profit on the small expense required for systematic records.

The Great Cottonseed Industry of the South. By Luther A. Ransom, ex-President of the Interstate Cottonseed Crushers' Association. Published by the Oil, Paint and Drug Reporter, New York. 125 pages, 15 illustrations, cloth bound.

The arrangements for the publication of this book had just been completed on the day of the death of the author, September 19, 1910. It is now offered to the public and to the wide circle of friends and business associates of the late Luther A. Ransom, a man who did much to build up an industry which is becoming a great factor in the industrial development of the South. It was the hope of the author, and is the belief of the publishers, that this book will encourage the farmers to raise better seed, the crushers to produce better and purer food products and better feed for stock, thereby inducing farmers of the South to raise more stock. If it will also induce people to use the pure and wholesome cottonseed salad oils, lards and oleomargarines, the purpose of the book will have been entirely accomplished.

The history of the cottonseed industry is followed up from its beginning—an interesting narrative in itself. A few of the things it has accomplished has been to increase the transportation business of the

country, the payment of many thousands of dollars in wages, the employment of thousands of men, the annual increase of the export business, the great financial and economic value to the country of the production of cotton oil, giving to the consumer a wholesome food product and supplying a deficiency in the world's supply of olive oil and butter. The enrichment of the soil has also been increased by the use of cottonseed meal, and the live-stock and dairy interests increased by the use of the meal and hulls.

The book contains a number of industrial articles written during a period of the past six years, together with much other information not hitherto published, and should prove of interest throughout the cotton-oil industry and the South in general.

Principles of Industrial Engineering. By Charles Buxton Going, M.Sc. 174 pages, cloth bound. Published by McGraw-Hill Book Co., New York and London.

This is another of the scientific-management treatises that are receiving such extended notice in many lines of industry and study. The subject-matter is substantially the text of a series of lectures prepared under the auspices of the department of mechanical engineering of Columbia University for delivery to senior students. It treats of the effects of replacement of hand labor by machinery and power, of standardization and its effects, of the threatening evils of overstandardization, of the benefits of industrial organization, of the proper distribution of expense, of primary wage systems and the philosophies of management. It will be read and studied with interest in connection with the contemporary publications of Taylor, Harrington, Emerson, Gantt and others on similar or co-ordinating subjects.

Motion Study—A Method for Increasing the Efficiency of the Workman. By Frank B. Gilbreth. Published by D. Van Nostrand Company, New York. Clothbound, 135 pages and 44 illustrations. Price \$2 net.

The underlying principle evolved in this book is comprehended in the statement of the author that "standardizing the trades is the world's most important work today and motion study in the various trades is the first factor in that work." The book is the result of years of observation by the author of the work of his own employees, and may be considered a treatise dealing with one of the specialized phases of efficient management. In an extensive introduction to this volume by Robert Thurston Kent, editor of *Industrial Engineering*, he states that "words fail the writer when he tries to express his appreciation of what Mr. Gilbreth has done in blazing a trail for future investigators. Properly carried to its logical conclusion, it would form the mightiest tool for the conservation of resources that the country could have."

The Pittsburg Survey. In six volumes. Edited by Paul Underwood Kellogg for the Russell Sage Foundation. \$1.50 net per volume; \$10 per set, postpaid. Publisher, Charities Publication Committee, New York.

The titles of the six volumes of the Pittsburg Survey, with their authors, are "The Pittsburg District," a symposium by John R. Commons, Florence Kelley, Robert A. Woods, Peter Roberts, Charles Mulford Robinson and others; "The Steel Workers," by John A. Fitch; "Homestead: The Households of a Mill Town," by Margaret F. Byington; "Women and the Trades," by Elizabeth Beardsley Butler; "Work-Accidents and the Law," by Crystal Eastman; "Pittsburg: The Gist

of the Survey," by Paul Underwood Kellogg. As the first undertaking of its kind, the Pittsburg Survey is a forceful presentation of some of the most important issues with which the industrial interests of this country must deal. The pioneer and experimental nature of the undertaking, and the insistence with which housing, hours, wages and food costs are brought down to human terms, gives the qualities of readability and human interest to its presentation. The style is clear and the volumes are all profusely illustrated with photographs, drawings, maps, charts and tables, and the whole fully indexed.

Rural versus Urban: Their Conflict and Its Cause. By John W. Bookwalter, Publisher, The Knickerbocker Press, New York.

This important discussion of present-day relations between city and farm conditions, bearing on the social, political and financial life of our country, is based on a study and review of rural and urban developments and their comparative influences on the strength or weakness of nations from ancient times to the present. Agriculture in ancient and modern Italy is taken as the basis, and the treatment of the subject is carried on with various examples to include the present strength of the peasantry of France as compared with other countries where agriculture is not so well cared for and upheld. The effect of the corn laws in England is referred to, and the deductions from all these studies is used as "a retrospect of a completed cycle of human experience from which may be drawn many a valuable lesson, such as may serve as a useful guide and a rule of conduct in future actualities of life." The trend of the subject is exemplified in this paragraph near the end of the book:

"To those who hold the belief that the safety and stability of a nation can be maintained only through sustaining a just communion of all its essential parts, and especially the purity of rural life, does it not seem an ever-increasing and pressing necessity that the agrarian rights and powers of a people should be evermore vigilantly safeguarded by holding urban aggression and power under salutary restraints, and thereby placing them both on the same common and enduring basis of equity?"

This book will be of general interest, and it may be added that it has been composed in language that for expression and form is notable and will be appreciated.

An American Consul in Amazonia. By Major J. Orton Kerbey, ex-Consul to Para, Brazil, author of "The Land of Tomorrow," etc. 370 pages and numerous illustrations. Subscription price \$2.50, postage paid.

This is practically a book of travel from the United States to South America, with special and extended attention to the Republic of Brazil. The author expects a large circulation of the volume in Brazil, but, considering the opportune time at which it has been published, the rapidly increasing interest of readers and business men in the United States for everything pertaining to South America, it may well be predicted that it will receive as much attention in this country as in Brazil. The author's extensive experience in the business, social and official affairs of the country about which he writes gives the reader a sense of confidence in the information respecting the resources, opportunities and possibilities of trade development with a country of greater territorial extent than the United States. The narrative is replete with personal reminiscences, and every chapter is interesting and instructive. A plea is made in the first chapter for a direct steamship line

from New Orleans to Para, for a fair exchange of the products of the two countries by uniting the two great rivers of the earth, the Mississippi and the Amazon.

The Engineering Index Annual for 1910. Publisher, the *Engineering Magazine*, New York. Price, \$2.

This is the ninth volume of this publication, which gives to busy engineers, superintendents and managers the continuous index to the engineering and technical literature of the past 26 years, classified in accordance with the system devised for the convenience of the reader. The articles indexed are first grouped under the great divisions of engineering practice to which they belong—civil, mechanical, electrical, mining, etc.—and under these again they are subgrouped according to the recognized special divisions of each field. Cross references have been freely used, so that the searcher for any subject may find a signpost directing him to his goal on every path he is at all likely to try, and the typography of the headings, subheadings and cross references noted has been devised so that they may be most quickly understood. In addition to these aids, the 1910 issue assembles in the front part of the book all catchwords under their classified arrangement, so that all topics under any heading, which in the book may be scattered through several pages, are here condensed into a list of a column or less. The list of periodicals covered by the Index includes about 250 publications, representing 17 nations and colonies and six languages.

Cotton Yarn and Onion Seed.

Boghossian & Co., 850 Main street, Paterson, N. J., write to the MANUFACTURERS RECORD:

"A large dealer in onion seed wishes to put said seed on American market. Your name was referred to us as a concern that could give information regarding general market condition, prevailing prices, quantity of annual importation, countries supplying same, variety of onion seed most demanded and best market. We have been informed the Southern States provide the best market, as there are big growers and dealers interested in those States, and we presume you will be able to give us the needed information. We have an inquiry from the Levant for Nos. 16, 18, 20, 22 and 24 yarns cotton on skeins. There is a big demand for yarns now supplied by English manufacturers. If we could find a Southern manufacturer that could offer prices low enough to compete with England we could surely open a profitable market that has so far been ignored by American manufacturers. Kindly let us know what are the lowest grade and lowest-priced cotton yarns obtainable in the United States."

Statistics compiled by the Birmingham (Ala.) Ledger show that \$25,000,000 were added to the wealth of the Birmingham district in the first six months of the year.

FINANCIAL NEWS

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending July 3.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	80	78
Allen Mfg. Co. (S. C.)	80	...
American Spinning Co. (S. C.)	100	...
Anderson Cotton Mills (S. C.)	48	...
Anderson Cot. Mills (S. C.) Pfd.	100	...
Aradilla Mills (S. C.)	98	...
Arkwright Cotton Mills (S. C.)	99	100
Augusta Factory (Ga.)	40	...
Avondale Mills (Ala.)	114	...
Relton Mills (S. C.)	130	134
Brandon Mills (S. C.)	98	103
Brocon Mills (S. C.)	90	...
Cannon Mfg. Co. (N. C.)	135	...
Cabarrus Cotton Mills (N. C.)	130	138
Chadwick Mfg. Co. (N. C.) Pfd.	100	...
Chiquola Mfg. Co. (S. C.)	170	...

Clifton Mfg. Co. (S. C.) Pfd.....	97	...
Clinton Cotton Mills (S. C.).....	130	...
Columbus Mfg. Co. (Ga.).....	98	98
Courtney Mfg. Co. (S. C.).....	100	...
Dallas Mfg. Co. (S. C.).....	99	...
Darlington Mfg. Co. (S. C.).....	99	...
D. E. Converse Co. (S. C.).....	90	...
Drayton Mills (S. C.).....	96	100
Eagle & Phenix Mills (Ga.).....	117	...
Easley Cotton Mills (S. C.).....	162	175
Enoree Mfg. Co. (S. C.).....	50	65
Enoree Mfg. Co. (S. C.) Pfd.....	96	100
Enterprise Mfg. Co. (Ga.).....	65	75
Exposition Cotton Mills (Ga.).....	200	...
Gaffney Mfg. Co. (S. C.).....	60	65
Gainesville Cotton Mills (Ga.).....	72	80
Glenwood Mills (S. C.) Cotton.....	130	150
Gluck Mills (S. C.).....	99	...
Granby Cot. Mills (S. C.) 1st Pfd.....	35	45
Granville Mfg. Co. (S. C.).....	140	145
Greenwood Cotton Mills (S. C.).....	57	60
Grendel Mills (S. C.).....	90	100
Hartsville Cotton Mill (S. C.).....	160	175
Henrietta Mills (N. C.).....	160	175
Inman Mills (S. C.).....	100	105
King Mfg. Co. (S. C.).....	90	95
Lancaster Cotton Mills (S. C.).....	130	...
Lancaster Cot. Mills (S. C.) Pfd.....	97	100
Langley Mfg. Co. (S. C.).....	104	112
Laurens Mills (S. C.).....	127	135
Limestone Mills (S. C.).....	155	160
Lockhart Mills (S. C.).....	65	...
Lockhart Mills (S. C.) Pfd.....	90	100
Loray Cotton Mills (N. C.) Pfd.....	95	...
Marlboro Cotton Mills (S. C.).....	98	...
Mills Mfg. Co. (S. C.).....	102	...
Molokoh Mfg. Co. (S. C.).....	95	105
Monaghan Mills (S. C.).....	96	...
Monarch Cotton Mills (S. C.).....	105	...
Newberry Cotton Mills (S. C.).....	125	130
Ninety-Six Cotton Mills (S. C.).....	130	150
Norris Cotton Mills (S. C.).....	121	130
Olympia Cotton Mills (S. C.).....	90	...
Orr Cotton Mills (S. C.).....	92	98
Pacolet Mfg. Co. (S. C.).....	90	...
Pacolet Mfg. Co. (S. C.) Pfd.....	95	100
Parker Common. P. (Ga.).....	80	90
Parker Preferred.....	85	...
Pelzer Mfg. Co. (S. C.).....	163	...
Piedmont Mfg. Co. (S. C.).....	175	177
Poe Mfg. Co. (S. C.).....	110	125
Saxon Mills (S. C.).....	130	...
Sibley Mfg. Co. (Ga.).....	65	68
Spitart Mills (S. C.).....	120	130
Trion Mfg. Co. (Ga.).....	130	...
Tucapau Mills (S. C.).....	310	350
Union-Butte (S. C.) 1st Pfd.....	75	...
Union-Butte (S. C.) 2d Pfd.....	16	...
Victor Mfg. Co. (S. C.).....	110	115
Warren Mfg. Co. (S. C.).....	90	95
Warren Mfg. Co. (S. C.) Pfd.....	100	105
Washington Mills (Va.).....	28	...
Washington Mills (Va.) Pfd.....	106	110
Whitney Mfg. Co. (S. C.).....	110	...
Whitcassett Mills (N. C.).....	135	...
Woodruff Cotton Mills (S. C.).....	110	115
Woodsdale Cotton Mills (S. C.).....	95	100
Watts Mills (S. C.).....	80	90
Williamston Mills (S. C.).....	120	125

Bank Reports.

The Merchants' National Bank of Baltimore, Md., reports at close of business June 29, 1911, collateral loans, \$5,631,594; bills receivable, \$4,188,690; United States bonds and other securities, \$1,028,608; capital stock, \$1,500,000; surplus fund, \$900,000; undivided profits, net, \$107,889; bank and individual deposits, \$12,471,049; total resources, \$15,997,439; Douglas H. Thomas, president; William Ingle, vice-president and cashier; J. Cleveland Wands and John B. H. Dunn, assistant cashiers.

Birmingham Voted the Bonds.

A dispatch from Birmingham, Ala., says that the election on July 3 voted, by a majority of 7 to 1, for the proposed issue of \$1,300,000 of 5 per cent. 30-year general deficiency bonds.

FINANCIAL CORPORATIONS.

Ala., Demopolis.—The Commercial National Bank is reported to have begun business with A. R. Smith, president; Isidore Bley, vice-president, and J. D. Norwood, cashier.

Ala., Daleville.—A new bank capitalized at \$25,000 is reported being organized with L. C. Welis cashier.

Ala., Foley.—The Bank of Foley is reported to have filed articles of incorporation; capital \$10,000. Stockholders: John B. Foley of Chicago, president; August Deckinger of Swift, vice-president; John C. Lehr, cashier; Frank S. Stone, Frank Fester of Foley, C. A. Swift, G. R. Swift of Bon Secour, W. T. Manning, William F. Meder, C. Alston, Wm. F. Stelk, J. S. Stelk and D. R. Petet of Foley, I. M. Larson of Magnolia Springs and Herman Koehler of Swift, directors.

Ala., Summerdale.—The Summerdale Investment Co., capital \$50,000, is reported to have filed articles of incorporation; T. P. Hamm, S. Harnstrom and W. S. Harvey, incorporators.

Ark., Harrison.—Official: The Farmers' Bank of Harrison incorporated; capital \$50,000; W. H. Price president, and F. Roff cashier. Business is to begin in a few days.

Ark., Rison.—Official: The Merchants and Planters' Bank incorporated; capital \$25,000; A. B. Banks, president; I. E. Moore, vice-

president, and J. T. Renfern, cashier. Business began July 3.

Ark., Eureka Springs.—The Arkansas Trust Co., capital \$50,000, is reported organized with directors thus: W. O. Perkins, president; W. J. Ewing, cashier; O. E. Helton, J. M. Simms, E. R. Odle, G. H. McLaughlin, J. Fred Bolton, W. J. Ewing and W. O. Perkins. Business is expected to begin July 5.

Ark., Little Rock.—Official: The Arkansas Abstract Co., with principal offices in Pine Bluff, is incorporated with \$10,000 capital for the purpose of engaging in the abstract business here and at Warren, Ark. W. E. Elkins, Sheridan, Ark., is president. S. B. Meek and D. A. Bradham of Warren are among the incorporators. The Bradley County Abstract & Guaranty Co. of Warren has consolidated with the Arkansas Abstract Co.

Ark., Siloam Springs.—Official: The Ozark Trust Co. incorporated; capital \$50,000; incorporators, C. A. Bonds, Kansas City, Mo.; J. L. Leder and J. W. Terry, Siloam Springs, Ark. Business has begun.

Ark., Wilmet.—The Citizens' Bank of Wilmet is reported organized with \$25,000 capital; \$15,000 paid in. Directors: J. A. Burns, president; E. O. McDermott, R. L. McDuffie; Mrs. A. E. Jackson, secretary-treasurer, and L. W. Perdue, vice-president.

Fla., Jacksonville.—Dispatches state that the Florida Life Agency Co., recently incorporated with \$500,000 capital, has begun business in the Bisbee Bldg.; Robert Gamble, president; Frank A. Wilbur, vice-president and general manager, and R. Howard Gamble, secretary and treasurer.

Fla., Orlando.—Official: The People's National Bank of Orlando incorporated; capital \$50,000; surplus \$10,000. Directors: James C. Patterson, president; C. A. Campbell, first vice-president; C. E. Johnson, second vice-president; L. G. Starbuck, attorney; J. N. M. Elroy, Chauncey Holt and C. E. Saunders, directors. Business is to begin in October.

Ga., Atlanta.—The Oglethorpe Fire Insurance Co. of Fulton county chartered; capital \$100,000, surplus \$100,000; incorporators, Robt. N. Hughs, M. B. Yates, E. N. O'Brien, A. B. Stovall, A. P. Stewart, D. M. Mathew and Altx W. Smith. Subscriptions are now being taken.

Ga., Buchanan.—Official: Stock is being subscribed for a new bank at Buchanan with \$25,000 capital. Incorporators: Claude Moore, J. R. Bush, B. F. Morgan, Phillips & Co., V. V. Pope, G. N. Moore, A. R. Dodson and others. Business is expected to begin about September 1.

Ga., Crawford.—A letter to the Manufacturers Record denies that a new bank is being organized at Crawford.

Ga., Dahlonega.—The Lumpkin Investment Co., capital \$500, is being organized by G. R. Glenn of Lumpkin county and C. S. Campbell of Fulton county.

Ga., Dawson.—The Bank of Dawson, capital \$100,000, is reported chartered by M. C. Edwards, S. D. Bowman, J. R. Mercer and D. C. Pickett.

Ga., Jeffersonville.—The Farmers and Merchants' Bank is reported being organized with \$25,000 capital; incorporators, J. H. Whitehurst, W. C. McCrary, A. S. Martin, J. L. White, J. S. Mangum, Joel Smith, S. O. Fountain.

Ga., Lilburn.—The Bank of Lilburn is reported to have made application for a charter; capital \$25,000; incorporators, S. W. Arnold, J. S. Young, R. E. Harmon, T. J. Smith, G. M. Garner, W. T. Burnsand and A. T. Jacobs.

Ga., Hampton.—The First National Bank of Hampton has been approved; capital \$25,000. Organizers: W. M. Harris, Hampton; S. H. Griffin, E. R. Harris, W. S. Davis, A. B. Milcham, R. E. Henderson and A. M. Henderson.

Ga., Milner.—Official: The Farmers' Bank chartered; capital \$25,000, with \$15,000 paid in; president, L. O. Bereton, Monticello, Ga.; J. M. Borrow, vice-president, Milner, Ga.; directors, B. F. Cook, T. J. Biles, W. W. Duke, J. C. Martin and others.

Ky., Bowling Green.—The Bowling Green Trust Co., to be conducted in connection with the Citizens' National Bank, has filed articles of incorporation; capital \$30,000; incorporators, Robert Rodes, Jr., J. M. Ramsey, T. H. Beard, M. B. Nahm, J. L. Jenkins, Harry Lazarus, W. C. Morris, J. H. Wilkerson, T. W. Thomas, S. A. Walker, George McIntire and W. B. Taylor.

La., Lafayette.—The People's Bank & Trust Co. is reported to have begun business with \$50,000 capital. J. M. Keith, president; Dr. F. E. Girard, Rev. J. Roquet and Dr. P. A. Duplex, vice-presidents; A. J. Broussard, cashier; Robert L. Mouton, clerk.

Miss., Verona.—A new bank, capitalized at \$15,000, is reported organized with W. S. Johnson president and T. J. Carmon vice-president.

Mo., Kansas City.—Official: The Commonwealth National Bank began business June 26 at 9th and Walnut Sts. with \$250,000 capital and \$50,000 surplus; G. M. Smith is president, Kansas City, Mo.; J. E. Huth, vice-president, Lawrence, Kans.; L. C. Smith, cashier, Kansas City, Mo.; E. J. Short, assistant cashier; W. L. Lacy, W. H. Evans and W. F. Walker, Kansas City, Mo.; Chas. Hofer, Higginsville, Mo.; Q. Monroe, Lawrence, Kans., and Fletcher Cowherd and Geo. E. Rucker, Kansas City, Mo.

N. C., Asheville.—Official: The new building and loan association, chartered, expects to begin business about July 1; F. R. Hewitt, president; H. C. Plummer, vice-president; J. D. Murphy, attorney; Frederick Rutledge, secretary and treasurer. Press dispatches give the name of the new concern as the Home Building and Loan Association.

Okla., Bessie.—The German State Bank reported chartered; capital \$10,000; directors, F. E. Slader of Snyder, J. G. Schnider and O. P. Smith.

Okla., Checotah.—Reported chartered: The Commercial National Bank; capital \$50,000.

Okla., Muskogee.—The National Investment Co., capital \$10,000, is reported incorporated by Barclay B. Rice, R. C. Rice, Eustace A. Hill and David Cain.

Okla., Oklahoma City.—Official: The State Building and Loan Association incorporated; capital \$250,000; A. C. Farmer, president; Ed L. Klein, vice-president; Stephen Smith, secretary; directors, Jas. E. Downer, A. Praden, C. L. Mercey and L. E. Jannan.

S. C., Chester.—The Home Builders' Loan Association is reported to have been granted a commission; capital \$100,000. Petitioners: J. H. Marion, W. A. Corkill, J. C. Stewart, J. Patterson, M. L. Marion, J. T. Perkins, John Frazer, J. D. Glass and H. B. Malone.

S. C., Columbia.—The Union Building & Investment Co. of Columbia has been granted a commission; capital \$400,000; petitioners, John H. Bollin, C. H. Baldwin, Jos. Norwood and Charles H. Barron.

S. C., Greenville.—Official: The Co-operative Investment Co. chartered; capital \$10,000; directors, J. E. Sirrine, president; Geo. Wrigley, vice-president; Alex. Rose, M. G. Smith, John A. McPherson and W. D. Dent. S. R. Riley is secretary-treasurer. Business began July 1.

Tenn., Lynchburg.—The First National Bank of Lynchburg is reported to have made application for a charter; capital \$25,000. Organizers: Jack Farrar, James T. Bickley, J. Atwood, T. L. Bohee, R. A. Lock and others.

Tex., Gordonville.—Reported chartered: The Guaranty State Bank of Gordonville; capital \$10,000. Incorporators: R. S. McAdams, H. C. Sanderson, Ben Oglesby, J. A. Lloyd, J. A. L. Wolfe, W. W. Scarbrough and C. M. Ziegler.

Tenn., Kelso.—The People's Bank of Kelso will, it is stated, begin business about August 15 with J. P. Cowley president, C. W. Taylor first vice-president, J. M. Moyers second vice-president, H. Boone Sorrells, cashier.

Tenn., Slayden.—Official: The Bank of Slayden incorporated; capital \$12,500; incorporators, J. M. Ferguson, J. H. McFall, G. R. Russell and W. D. Potts of Slayden, Tenn., and W. Q. V. Schmitt, Van Leer, Tenn. Business is to begin July 1.

Tex., Dallas.—Official: The National Temperance Life Insurance Co. of Dallas chartered; capital \$100,000; surplus \$100,000; Jos. E. Cockrell, president; A. Ragland, vice-president; Geo. W. Riddle, treasurer; Henry Carnes Harris, secretary; Sneed Strong, medical director; L. C. White, actuary; directors, Gov. T. M. Campbell, Palestine; C. B. Gillespie, Dallas; T. S. Henderson, Cameron; C. B. Bryant, Whiteport Whitewright, Jasper Collins, Dallas; H. G. Stinnett, Sherman; Granville Sims, Temple, and others.

Tex., Menard.—Reported chartered: The First National Bank of Menard; capital \$35,000. D. G. Benchoff, president; J. A. Bevans, vice-president, and L. G. Callan, cashier.

Tex., Pattonville.—The First State Bank of Pattonville, capital \$15,000, is reported organized with Dr. S. A. McCuiston president, Chas. Edmondson vice-president, N. D. Hammond cashier.

Tex., Saragosa.—The Toyah Valley State Bank reported chartered; capital \$10,000. Incorporators: C. M. Honaker, H. Robbins, W. C. Salthouse, D. Davis, E. B. Kiser and T. B. Pruett.

Tex., Shiro.—The Farmers' State Bank of Shiro is reported chartered; incorporators, W. H. Franklew, L. M. Herman, J. B. Suedel and E. I. Rigby.

Tex., Texas City.—The Texas City National Bank is reported chartered; capital \$100,000; H. B. Moore, president; J. H. Sieber and I. H. Kempner, vice-presidents; O. D. Gustavus, cashier, and J. E. Sieber, assistant cashier.

Va., Elba.—Official: The Bank of Elba and the Elba Savings Bank have combined under the name of the People's Bank, chartered and incorporated with \$20,000 capital. Business began July 1.

Va., Newport News.—The Colonial Bank, maximum capital \$100,000, has begun business with A. L. Powell, president; W. Lee Powell, vice-president; J. E. T. Hunter, cashier, and Frank Bartlett, assistant cashier.

NEW SECURITIES.

Ala., Attalla.—John B. Weekly of Birmingham is reported to have purchased \$16,000 of school bonds.

Ala., Birmingham.—An ordinance has been prepared providing for \$500 of 6 per cent. bonds of Pratt City, Birmingham.

Ala., Birmingham.—An ordinance has been prepared providing for the issuing of \$39,000 of 6 per cent. 10-year bonds for the purpose of paying outstanding contractors' estimates for public improvements.

Ala., Cullman.—An ordinance is reported passed and approved authorizing the issuing of \$15,000 of sidewalks and crossing bonds.

Ala., Dothan.—An official letter denies report that ordinance providing for bond election has been passed.

Ala., Gadsden.—Reported sold: \$25,000 of 6 per cent. Etowah county jail construction warrants.

Ala., Headland.—City proposes, it is reported, to issue \$7500 of 5 per cent. water and light improvement bonds; denomination \$500.

Ala., Mobile.—Bids were received until noon July 1 by Patrick J. Lyons, Mayor, for \$22,000 of refunding bonds.

Ala., Montgomery.—Press dispatches state that an election will probably be held about August 20 to vote on \$300,000 of bonds.

Fla., Marianna.—An election is reported to have been called to vote on \$300,000 of Jackson county road bonds.

Fla., Miami.—Reported defeated: \$50,000 of municipal bonds.

Fla., Palatka.—Official: July 11 an election is to be held to vote on \$15,000 of 5 per cent. paving bonds. Howell A. Davis is Mayor.

Fla., Pensacola.—Reported voted: \$100,000 of Escambia county jail and refunding courthouse bonds. Jos. I. Johnson is chairman Board of County Commissioners.

Fla., Pensacola.—An ordinance is reported to have been introduced in the City Council providing for the issuing of refunding bonds.

Fla., Pensacola.—Official: Voted: \$100,000 of Escambia county jail and refunding courthouse bonds. Interest 4½ per cent; dated October 1, 1911; maturity October 1, 1941; denomination \$500. Bonds will probably be offered about August 5. Jas. MacGibbon is County Clerk. Jos. I. Johnson is chairman Board of County Commissioners.

Fla., St. Petersburg.—Bids will be received, it is reported, until 8 P. M. August 3 by W. F. Divine, City Clerk, for \$100,000 of 6 per cent. improvement bonds.

Ga., Barnesville.—Reported that the Walker Financier & Securities Co. of Sparta, Ga., has been awarded at \$50,740 the \$50,000 school, water and sewer bonds.

Ga., Blakely.—Reported that \$60,000 of sewer bonds have been purchased at \$700 premium by the First National Bank of Blakely.

Ga., Camilla.—Official: Bids will be opened the second Monday night in July for \$15,000 of sewerage and \$5000 of city hall 5½ per cent. bonds. Denomination \$500; maturity January 1, 1941. Address T. B. Perry, Mayor.

Ga., Dawson.—An official letters confirms report that \$12,500 of school bonds have been sold. R. E. Bell is Clerk.

Ga., Unadilla.—Press dispatches state that steps are being taken to sell the sewerage and water bonds recently voted. D. S. Ivey is Mayor.

Ky., Glasgow.—Dispatches state that bids will soon be asked for \$15,000 of refunding bonds.

La., Donaldsonville.—Notice is given that an election is to be held in Ascension parish August 1 to vote on \$180,000 of 5 per cent. New River Drainage District bonds; Leon Picard is president Board of Commissioners of New River Drainage District.

La., Kentwood.—Official: August 1 an

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 South and Water Sts., BALTIMORE, MD.
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 WM. INGLE, Vice-Pres. and Cashier.
 J. C. WANDS, Asst. Cashier.
 JOHN B. H. DUNN, Asst. Cashier.
 Capital \$1,500,000
 Surplus and Profits \$900,000
 Deposits \$12,000,000
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 and Individuals solicited. We invite corre-
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 Jno. M. Miller, Jr., Vice-Pres. & Cashier.

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 W.W. PUSEY, 2d Title and Real Estate Officer.

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election is to be held to vote on \$50,000 of bonds. Address W. D. Welsh.

La., Plaquemine.—Cutter, May & Co. have been awarded at par and accrued interest, less \$1200, the \$60,000 of 5 per cent. bonds of School District No. 1. Dated March 22, 1910; maturity March 22, each year; denomination \$1000. Address School Board of Iberville parish.

Md., Baltimore.—The \$300,000 of State insane asylum bonds have been awarded at par, as follows: Townsend Scott & Co., \$50,000, at from 101.01 to 100.54, and the Safe Deposit & Trust Co., \$250,000 at 100.37.

Md., Frederick.—Official: Bids will be received until 8 P. M. July 19 for \$30,000 of 4½ per cent. 10 or 20-year (option of city) water-supply bonds; denomination \$500 and \$1000. Address the Mayor and Aldermen.

Miss., Biloxi.—Reported that \$70,000 of water-extension bonds were voted on June 27.

Miss., Hernando.—An official letter says De Soto county proposes to issue \$20,000 of bridge bonds as soon after July 1 as possible. Address D. E. Wilson, Nesbit, Miss.

Mo., Belton.—Official: Voted June 17: \$10,000 of 5 per cent. 5-10-year bonds for macadamizing streets. Denomination \$500. Address W. P. Houston, Mayor; John Berry, W. A. Roberts, J. Guy Bailey and Geo. A. Brown, members City Council.

Mo., Belton.—Official: Voted June 17: \$10,000 of 5 per cent. 5-10-year street-improvement bonds; denomination \$500; dated June 17, 1911. Address City Council.

Mo., Carrollton.—Official: Bids were opened July 6 for \$230,000 of 6 per cent. drainage and levee bonds of District No. 3, Carroll county, bonds. F. W. Gibson is treasurer and Jones & Conkling attorneys for the district.

Mo., Centralia.—Reported defeated: \$6500 of water and sewerage bonds.

Mo., Cabool.—Official: Bids will be opened July 15 for \$9000 of 6 per cent. 20-year water-works bonds; denomination \$500. Address J. W. Patton, Mayor.

Mo., Kansas City.—Official: The Fidelity Trust Co., Kansas City, Mo., purchased on June 26 the \$73,001.34 of 6 per cent. 15-year park and parkway bonds at a premium of 5 mills on the dollar; denomination \$1000; dated January 21, 1911. F. P. Gossard is secretary Park Commissioners.

Mo., St. Charles.—Dispatches state that all bids received June 12 for the \$30,000 of 4 per cent. 5-20-year water-works improvement bonds were rejected, and it is said the bonds will be reoffered as 4½s.

Mo., Webb City.—Reported that bids will be received until 8 P. M. July 7 by J. T. Aldridge, secretary Board of Education, for \$20,000 of 4 per cent. 5-20-year school district building bonds; dated July 15, 1911.

Mo., Webb City.—Bids were received by L. O. Walker, City Clerk, it is reported, until 6 P. M. July 3 for \$8000 of 5 per cent. 10-20-year funding bonds.

N. C., Red Springs.—Reported that A. B. Pearsall, chairman Board of Public Works, will receive bids until 11 A. M. July 11 for \$25,000 of not exceeding 5½ per cent. 30-year water and sewer bonds.

Okla., Altus.—Reported voted: \$5300 of well bonds.

Okla., Chickasha.—An official letter confirms report that a bond issue for park purposes is under consideration. J. B. Burton is Mayor.

Okla., Chickasha.—Reported that an election will soon be held to vote on \$25,000 of bridge bonds.

Okla., Pawnee.—G. W. Lillie of Pawnee is reported to have purchased at par \$35,000 of 5 per cent. 25-year Pawnee school district building bonds.

Okla., Tecumseh.—The Shawnee National Bank of Shawnee is reported to have purchased the \$50,000 of Little River drainage district (Pottawatomie county) bonds.

Okla., Vian.—Official: Bids are now being received for \$20,000 of 6 per cent. 5-20-year water-works bonds. Denomination \$1000; dated April 17, 1911; maturity 1931. Address G. L. Frances, City Clerk.

S. C., Barnwell.—C. H. Coffin of Chicago is reported to have been awarded at \$163 premium \$6000 of 6 per cent. 20-year refunding bonds.

S. C., Edgefield.—J. H. Hillsman & Co., Atlanta, are reported to have been awarded \$15,000 of 5 per cent. 20-40-year electric-light bonds at par.

S. C., Edgefield.—J. H. Hillsman & Co. of Atlanta are reported to have been awarded at par \$15,000 of 5 per cent. 20-40-year electric-light-plant improvement bonds.

S. C., Greenville.—Official: Bids will be received until noon August 1, 1911, by the Board of Trustees of School District No. 17, T. Q. Donaldson, chairman, and P. T. Hayne, secretary, for \$40,000 of 5 per cent. 20-year bonds for building and repairing school building. Denomination to suit purchaser. Maturity July 1, 1921.

S. C., McBee.—Official: Bids are now being received for \$4000 of 5 per cent. water-works bonds voted June 20; denomination to suit purchaser; dated June 23, 1911; maturity June 23, 1957. Address F. E. Kerr.

Tenn., Brownsville.—J. O. Bomer will, it is reported, receive bids until July 10 for \$40,000 of 5 per cent. 30-year street-improvement bonds.

Tenn., Trenton.—Reported defeated: \$17,500 of electric-light bonds.

Tenn., Waverly.—Reported defeated: \$100,000 of Humphreys county road bonds.

Tex., Alvin.—Bids will be received at any time, it is reported, by J. S. Jackson, City Secretary, for \$10,000 of 5 per cent. 20-40-year street-improvement bonds.

Tex., Anahuac.—Reported voted: \$43,000 of 5 per cent. 10-40-year Chambers county courthouse and jail bonds.

Tex., Archer City.—Reported voted: \$12,000 of 6 per cent. 5-40-year water bonds.

Tex., Austin.—The Attorney-General has approved securities as follows: \$150,000 of 5 per cent. 10-40-year bonds of Houston road dis-

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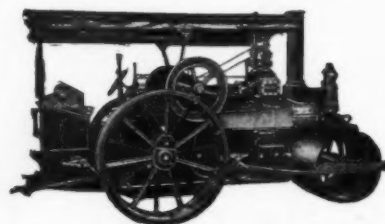
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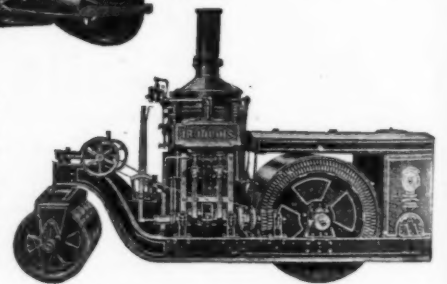


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at No. 3; \$5000 of 5 per cent. 30-year bonds Andrews county common school district 2; \$1800 of 5 per cent. 10-20-year bonds of her county common school districts Nos. 4 and 40; \$800 school district No. 53 and \$800 school district No. 52 5 per cent. 10-20-year bonds of Smith county; \$14,000 of 6 per cent. 10-year water-works bonds of Rogers; \$12,000 of 5 per cent. 40-year San Patricio common school district No. 5 bonds; \$14,000 of 5 per cent. 10-40-year Sabine common school district No. 1 bonds; \$3000 of 5 per cent. 20-40-year Rotan independent school district bonds; \$5000 of 5 per cent. 5-20-year Winnsboro independent school district bonds; \$5000 of 5 per cent. 10-40-year Lyford independent school bonds.

ex., Beaumont.—Official: In about six or eight weeks city proposes to vote on \$25,000 school-building, \$60,000 of park, \$15,000 of \$50,000 of sewerage, \$25,000 of abattoir \$25,000 of street-improvement and repair bonds. Emmett A. Fletcher is Mayor and J. Sutton City Secretary.

ex., Chillicothe.—Bids are being received \$15,000 of 5 per cent. 10-40-year municipal water-works bonds; dated March 11, 1911. J. W. O. Scott, Secretary.

ex., Crockett.—Bids will be received by E. H. Crockett, County Judge, until 2 P. M. July 8 \$150,000 of road district No. 3 and \$24,000 road district No. 1 5 per cent. improvement bonds.

ex., Dublin.—August 5, it is reported, an election is to be held to vote on \$45,000 of independent school district bonds.

ex., El Paso.—Reported voted on June 20: \$5000 of El Paso county poor farm and hospital bonds.

ex., Fite.—Reported that bids will be received until July 10 by H. F. Peek, secretary and of Education, for \$13,000 of 5 per cent. 4-year school district building bonds.

ex., Gonzales.—Reported voted: \$150,000 of bonds of precinct No. 1.

ex., Groveton.—Official: Voted June 24: \$5000 of road precinct improvement bonds. J. C. J. Jinson, judge of Trinity county. W. Locke is County Clerk.

ex., Melvin.—Dispatches state that Melvin and Whiteland have voted \$7000 of school-building bonds.

ex., Orange.—Official: Local parties have purchased \$43,000 of 5 per cent. 10-40-year Orange county bonds to improve and open navigation to Gulf of Mexico. Denomination \$1000. W. H. Stork is president Navigation Board.

ex., Port Arthur.—July 18, it is reported, an election is to be held to vote on \$80,000 of street paving and \$75,000 of drainage bonds.

ex., Richmond.—Dispatches state that an election is to be held July 6 to vote on \$20,000 independent school district bonds.

ex., San Antonio.—Official: A. B. Leach Co., N. W. Halsey & Co. and E. H. Rollins bonds were awarded at par and interest on June 26 the \$308,000 of 4½ per cent. 10-40-year bonding courthouse bonds of Bexar county; dated July 1, 1911; maturity July 1, 1951. Frank B. Newton is County Clerk.

ex., Sherman.—Bids will be received until July 10, it is reported, by Barney C. Wager, secretary, for \$32,000 of 5 per cent. improvement bonds.

ex., Waco.—Reported defeated: \$600,000 of Cleburn county road-improvement bonds. McCullough is County Judge.

ex., Waco.—Reported voted: \$200,000 of school, sewer and street-improvement bonds.

ex., Wichita Falls.—An official letter does report that an election is to be held on July 22 to vote on \$32,500 of street-improvement bonds. The matter of issuing bonds has been discussed, but no action on nor election ordered. T. B. Noble is Mayor.

ex., Charlotte C. H.—Official: All bids received June 26 for the \$60,000 of 4½ and 5 per cent. 20-40-year Charlotte county road-improvement bonds were rejected, and new bids to be received until noon July 15. Address N. Morgan, J. C. Carrington and A. B. C. committee.

ex., Danville.—Official: An election will be held July 11 to vote on bonds to enlarge electric plant and park N. Main St. Hartly Bonding is Mayor.

ex., Fairfield.—Reported defeated: \$35,000 bonds of school district No. 2.

ex., Lawrenceville.—Official: August 1 an election is to be held to vote on \$50,000 of 5 per cent. 10-20-30-year water, light and sewer bonds. Denomination \$1000.

ex., Newport News.—An official letter says that there will be no issue of bonds in the near future, nor at any time in the near future.

ex., Rocky Mount.—Official: Bids will be

received until July 25 for \$50,000 of 5½ per cent. water-works, sewerage and electric-light bonds by the following committee: C. S. Greer, Mayor; W. A. Beecher, Recorder, and N. S. Angle.

W. Va., Clarksburg.—Reported that an election is soon to be held to vote on \$275,000 of school-building bonds.

W. Va., Lewisburg.—Official: Voted June 30: Street-improvement bonds. Town will now sell \$165,000 of 5 per cent. 20-year bonds. Jno. S. Crawford is Clerk of Greenbrier county.

W. Va., Logan.—Reported voted: \$10,000 of street-improvement bonds.

W. Va., Morgantown.—Official: Defeated: \$100,000 of paving and sewer bonds.

W. Va., Morgantown.—Reported defeated: \$100,000 of paving and sewer bonds.

At Greenville, S. C., bids will be received until noon August 1 for \$40,000 of 5 per cent. 20-year bonds for building and repairing school buildings of District No. 17. Further particulars will be found in the advertising columns.

FINANCIAL NOTES.

The North Carolina County Bankers' Association will, it is reported, meet at Wrightsville Beach August 9 and 10.

The National Bank of Fairmont, W. Va., according to press dispatches, is doing business in its new home in the Watson Bldg.

The People's Bank of Greenville at Greenville, S. C., according to press dispatches, will increase its capital from \$100,000 to \$200,000.

The First National Bank of Clarkdale, Miss., is reported to have reorganized under the name of the Mercantile Bank, increasing its capital from \$30,000 to \$50,000.

At the annual meeting of the Maryland Bankers' Association, held at Deer Park June 20, 21 and 22, Waldo Newcomer was elected president for the ensuing year.

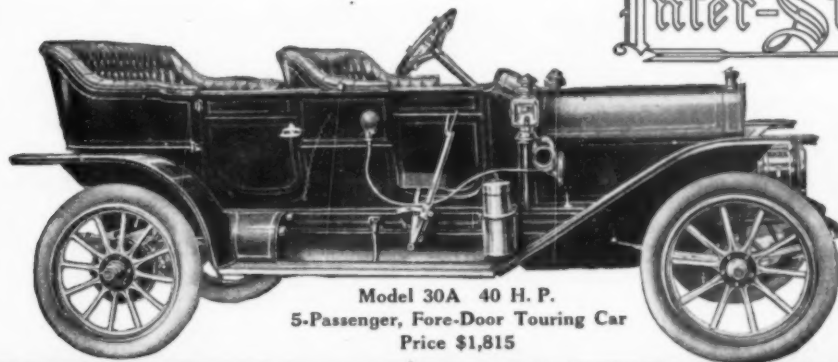
The Louisville (Ky.) Railway Co. announces that it will receive bids until noon July 8 for \$750,000 of 5 per cent. 40-year general mortgage bonds.

A condensed statement of 342 State banks in Mississippi at close of business June 7 shows loans and discounts, \$19,991,226; due from other banks, \$13,152,155; cash on hand, \$3,356,065; cash paid in, \$13,302,886; surplus, \$2,882,998; undivided profits, \$2,208,121; individual deposits, \$43,788,906; time certificates of deposit, \$11,243,855; due to other banks, \$683,648; total resources, \$76,489,527.

The Sullivan Bank & Trust Co. of Montgomery, John P. Kohn, president, has offered to loan the State of Alabama \$100,000 at 4 per cent. for the remainder of the year, which, it is understood, is needed until tax and other returns are made to the treasury. The bank also offered to arrange a loan for any amount. This is one of sundry instances of Southern banks being able to take care of home financing.

A condensed statement of 201 State banks in Louisiana at close of business June 7 shows demand loans, \$16,024,409; loans secured by mortgage, \$16,060,983; other loans and discounts, \$34,414,182; due from banks and bankers, \$17,552,100; capital stock paid in, \$13,689,250; surplus, \$7,071,346; undivided profits, less expenses and taxes paid, \$2,293,802; due to other banks and bankers, \$10,815,550; individual savings deposits, \$25,175,612; individual deposits subject to check, \$45,955,410; time and demand certificates of deposit, \$5,835,746; total resources, \$115,302,738.

At the annual meeting of the Maryland Bankers' Association, held at Deer Park June 20, 21 and 22, the following officers were elected for the ensuing year: Waldo Newcomer, president of the National Exchange Bank of Baltimore, president; Daniel Annan of Cumberland, first vice-president; Charles Hann and William Marriott, secretary and treasurer, respectively; vice-presidents, M. E. Doll, president of the Frederickstown Savings Institution; T. Rowland Thomas, president of the National Bank of Baltimore; L. G. White of the National Bank of Port Deposit; S. S. Watts of Baker, Watts & Co. of Baltimore; Walter T. Wright, president of the Queen Anne National Bank of Centerville; J. B. Kleffer of the Hagerstown Bank; T. G. Potts of the Central Savings Bank of Baltimore; Charles S. Pyle of the National Bank of Rising Sun, and Albert G. Towers, president of the People's National Bank of Denton.



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At Close of Business, June 29, 1911

RESOURCES

Demand Collateral Loans	\$3,209,003.05
Time Collateral Loans.....	2,422,591.31
Bills Receivable	4,188,690.54
United States Bonds.....	878,000.00
Other Securities Owned.....	150,668.10
	<hr/>
Banking House and Lot.....	355,000.00
Five per cent. Redemption Fund.....	38,900.00
Exchange for Clearing House.....	287,537.41
Due from Reserve Agents (N. Y. Exchange).....	1,107,654.32
Other Eastern Exchange subject to check..	300,000.00
Due from other Banks and Bankers.....	1,489,016.11
Cash	1,570,378.63
	<hr/>
	\$15,997,439.47

LIABILITIES

Capital Stock	\$1,500,000.00
Surplus Fund.....	\$900,000.00
Undivided Profits net	107,889.60
	<hr/>
Dividend payable July 1, 1911.....	67,500.00
Circulation.....	773,000.00
Bonds Borrowed	178,000.00
Bank Deposits.....	\$6,428,055.42
Individual Deposits.....	6,042,994.45
	<hr/>
	\$12,471,049.87
	<hr/>
	\$15,997,439.47

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